

1 STATE OF INDIANA )  
 ) SS:  
2 COUNTY OF DELAWARE )  
3  
 IN THE DELAWARE COUNTY SUPERIOR COURT  
4  
5 CRAIG DUNN and PHILIP WILEY, )  
 et al., )  
6 Plaintiffs, )  
 )  
7 -v- ) CAUSE NO.  
 ) 18D01-9305-CT-06  
8 RJR NABISCO HOLDINGS )  
 CORPORATIONS, et al., )  
9 Defendants. )

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11 VOLUME 22  
 MARCH 11, 1998  
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1 THE COURT: All rise.  
2 Thank you. Be seated. Good morning,  
3 Counsel.

4 ALL: Good morning, Judge.

5 THE COURT: All right. We're on  
6 the record. Jury is not present.

7 Last evening there was a question put  
8 by Mr. Ohlemeyer to the witness with respect  
9 specifically to environmental tobacco smoke,  
10 how it is the evidence, is there evidence to  
11 suggest that environmental tobacco smoke is  
12 a possible cause of cancer in nonsmokers.  
13 During his answer, he began to talk about  
14 the EPA ETS risk assessment, State of  
15 California has done a similar evaluation.  
16 And then he said "and last week." At that  
17 point we had a bench conference. There was  
18 also a request to question the witness by  
19 Mr. Ohlemeyer outside the presence of the  
20 jury.

21 For the record, Mr. Motley, what's the  
22 objection at this point?

23 MR. MOTLEY: Well, Judge, I'd like  
24 to hear what the man is going to say about  
25 it before I state it.

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1 THE COURT: That's fair. Is he  
2 here?

3 MR. OHLEMEYER: Yes, he is, Your  
4 Honor.

5 THE COURT: There he is.

6 Raise your right hand.

7 DEFENDANTS' WITNESS, RICHARD CARCHMAN, SWORN

8 THE COURT: Have a seat, please.

9           Would you state your name for the record.  
10           THE WITNESS: Richard Carchman.  
11           THE COURT: Thank you.  
12           Mr. Ohlemeyer.  
13           MR. OHLEMEYER: Thank you, Your  
14           Honor.

15 VOIR DIRE EXAMINATION

16 BY MR. OHLEMEYER:

17     Q   Dr. Carchman, tell us what the International  
18         Agency for Research on Cancer is.  
19     A   It's an international research body based in  
20         Lyon, France. It's part of the World Health  
21         Organization, and it receives the majority  
22         of its funding from the United States,  
23         Germany, and Japan.  
24     Q   And do they conduct or sponsor research in  
25         areas of health?

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1     A   Yes.  
2     Q   And do they publish a biannual report that  
3         reports on the results of their research?  
4     A   Yes.  
5     Q   And have they recently published a biannual  
6         report that discusses an epidemiological  
7         study that they coordinated involving  
8         exposure to environmental tobacco smoke?  
9     A   Yes.  
10    Q   And in that biannual report, do they provide  
11         estimates of relative risks and confidence  
12         intervals which they derive from data  
13         collected in their study?  
14    A   For the most part, yes.  
15    Q   And do they provide a table that describes  
16         relative risk of lung cancer by years of  
17         exposure to environmental tobacco smoke from  
18         spouse or workplace and by histological cell  
19         type?  
20    A   Yes.  
21    Q   And is that table derived from data  
22         collected in their study?  
23    A   Yes.  
24    Q   And based upon the data contained in that  
25         biannual report described in this study,

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1         what, if anything, can be said about the  
2         risk of developing lung cancer as a result  
3         of exposure to environmental tobacco smoke  
4         based on their study?  
5    A   Based on both the data in the information  
6         they provided and some statements they made,  
7         it is not possible to distinguish an effect  
8         from no effect.  
9    Q   Let's leave aside -- when you say  
10         statements, do you mean in this report?  
11    A   Yes.  
12    Q   So we've confined ourselves to the biannual  
13         report?  
14    A   Yes.

15                 MR. OHLEMEYER: Well, Your Honor,  
16         that's essentially what I want to do with  
17         the witness.

18                 THE COURT: All right.

19                 MR. OHLEMEYER: I don't understand

20 the --  
21 THE COURT: Mr. Motley, care to  
22 inquire?  
23 VOIR DIRE EXAMINATION  
24 BY MR. MOTLEY:  
25 Q Dr. Carchman, good morning. My name is Ron  
7673  
1 Motley. You and have I never met.  
2 What statements in the report were you  
3 referring to?  
4 A I'm just trying to find my --  
5 Q Yes, sir.  
6 A For example, if I look on page 77, the  
7 bottom of the first paragraph, there's a  
8 statement that says, "There was no  
9 association between lung cancer risk and ETS  
10 exposure during childhood." That's a  
11 statement without any quantitative  
12 information.  
13 Q Okay. And would you agree, sir, that this  
14 is an abstract without the underlying  
15 analysis of the data by the authors?  
16 A I would agree that this is an abstract, but  
17 the analyses that they've deemed to share  
18 are provided in this document, both in that  
19 paragraph and in the figure that's listed as  
20 Figure 20.  
21 Q And they reach certain conclusions  
22 themselves based on the data, do they not?  
23 A That's correct.  
24 Q Are you aware, sir, that this abstract is in  
25 the form of a more voluminous data analysis  
7674  
1 that is undergoing revision even as we  
2 speak?  
3 A Yes.  
4 Q And that it has not been submitted for peer  
5 review?  
6 A The voluminous information that's been  
7 submitted to a journal?  
8 Q Right.  
9 A This has been peer reviewed, okay.  
10 Q By whom?  
11 A By IARC.  
12 Q And are you aware that the IARC issued a  
13 press release condemning the cigarette  
14 companies for spinning in an untoward way  
15 the results of this particular article? Are  
16 you not aware of that?  
17 A No.  
18 MR. MOTLEY: May I hand this to  
19 him, Your Honor?  
20 THE COURT: Go ahead.  
21 A Thank you. It's not -- I mean, I understand  
22 what they're saying, but I see nothing in  
23 here that says anything about tobacco  
24 companies spinning anything.  
25 Q Well, are you aware of the press release  
7675  
1 that was put out by British American Tobacco  
2 Company --  
3 A No.  
4 Q -- with respect to this?

5 A No.  
6 Q You would understand, based on, at least on  
7 that, that -- who doesn't interpret this  
8 data as indicating there is not a risk from  
9 passive smoking; correct?  
10 A Say that again.  
11 Q Who does not interpret the data as  
12 indicating that there is not -- not -- a  
13 risk from secondhand smoke to people who are  
14 nonsmokers; correct?  
15 A Yes.  
16 MR. MOTLEY: Your Honor, can the  
17 witness be excused?  
18 THE COURT: Anything else,  
19 Mr. Ohlemeyer?  
20 MR. OHLEMEYER: No. I don't think  
21 so, Your Honor.  
22 THE COURT: All right. Thank you,  
23 Doctor. We'll call you back.  
24 MR. OHLEMEYER: Your Honor, before  
25 he leaves, can I ask something unrelated to

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1 this, but something we talked about  
2 yesterday?

3 THE COURT: Go ahead.  
4 VOIR DIRE EXAMINATION

5 BY MR. OHLEMEYER:

6 Q Dr. Carchman, am I correct we talked  
7 yesterday about a subchronic inhalation  
8 study and a lifetime study; right?

9 A Yes.

10 Q Is there a chronic inhalation study in  
11 between here?

12 A Yes.

13 Q And is the chronic inhalation study a study  
14 that has been submitted for publication?

15 A Yes.

16 Q And were the tables that you provided to  
17 Ms. Ritter at your deposition tables of data  
18 that came from the chronic inhalation  
19 studies?

20 A Directly.

21 MR. OHLEMEYER: Thank you.

22 THE COURT: Mr. Motley, do you have  
23 an objection to that line of questioning?

24 MR. MOTLEY: I don't know whether I  
25 do or I don't, Your Honor. I guess what I'm

7677

1 looking for here is, obviously, this data  
2 was issued, again, right in the middle of  
3 the trial. There's no question about that.

4 In other words, this abstract about  
5 which he speaks was issued, I think, on  
6 March the 8th or 9th. There was a press  
7 release about it by British American Tobacco  
8 Company yesterday. And so I don't think  
9 there is any way anybody can claim that this  
10 was something that we knew about until  
11 virtually yesterday, March the 10th.

12 It puts me in this situation: We don't  
13 have the underlying data. All we got is  
14 that one figure and their analysis and their  
15 interpretation of it. If Your Honor is

16 inclined to allow this in, we're going to  
17 need to rebut this, and we, in fact, we've  
18 already talked to epidemiologists about  
19 this, and what I assume his spin on this is  
20 going to be.

21 And I think that it's objectionable,  
22 technically -- I'm not much of a technical  
23 objector -- but technically at the policy  
24 reasons underlying hearsay exceptions, a  
25 question whether an abstract, where we don't

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1 have the underlying data, that's released in  
2 the middle of the trial has the requisite  
3 trustworthiness under Rule 803, the policy  
4 reasons that are set forth for that. Even  
5 though I understand Rule 703 allows Your  
6 Honor wide latitude.

7 And if it's a type normally relied  
8 upon, and I assume this gentlemen is going  
9 to say it's what they normally rely upon,  
10 notwithstanding the fact that he has  
11 testified in other proceedings, and it needs  
12 to be peer reviewed before -- of course, he  
13 did say this was peer reviewed. So he  
14 can -- I'm making a lot of weight arguments.

15 THE COURT: It sounds like it.

16 MR. MOTLEY: I know. But it does  
17 put me in a peculiar position here, Your  
18 Honor, of having something unfold. This is  
19 not the first time something has unfolded  
20 right in front of my eyes here. This is the  
21 third time something has unfolded right in  
22 front of our eyes.

23 I just hope that Your Honor will give  
24 us some latitude in cross-examining this man  
25 about this, and on behalf of this four-page

7679

1 thing here, and also that Your Honor will  
2 understand and be sympathetic to the fact  
3 that this has appeared in the middle of the  
4 trial when they start screaming and  
5 hollering about rebuttal witnesses in regard  
6 to this.

7 So technically, for the record, I  
8 object on the grounds that the  
9 trustworthiness that's required by Rule 803  
10 is not here, for those reasons. But I think  
11 those are probably -- to be candid with the  
12 Court, are probably weight arguments. And I  
13 assume you're probably going to let him  
14 testify about it because of your prior  
15 rulings on 703.

16 But just for the record, I don't want  
17 this to come in without the plaintiffs'  
18 objection, because it is unfolding right in  
19 the middle of our case, right in the middle  
20 of the case.

21 THE COURT: Duly noted, Mr. Motley.

22 Mr. Ohlemeyer, care to be heard?

23 MR. OHLEMEYER: Your Honor, I think  
24 the organization and its publication is  
25 certainly something that is reliable, and

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1 the types of things people like this, a  
2 witness with this background, his experience  
3 rely upon.

4 All I want the witness to do is to tell  
5 us what you can -- what conclusions can be  
6 drawn at this point from what this  
7 organization has published. I'm not going  
8 to get into spin, I'm not going to get into  
9 press releases, nor do I think it's  
10 appropriate to cross-examine the witness  
11 about what anyone has said about this  
12 outside the courtroom.

13 All I want him to do is tell me, can  
14 you take this information, in whatever form  
15 this organization has chosen to publish it,  
16 and draw any conclusions from it. And  
17 that's something that I'm sure he will be  
18 cross-examined on very vigorously.

19 MR. MOTLEY: What Mr. Ohlemeyer  
20 wants, Your Honor, and what's fair here, is  
21 not necessarily the same thing. I just ask  
22 for latitude, given this situation I'm in,  
23 some latitude here on cross-examining the  
24 gentleman about all of this and some  
25 latitude when we come to rebuttal, but let's  
7681

1 just see what happens.

2 I mean, I can't predict what  
3 Mr. Ohlemeyer is going to ask him and what  
4 he's going to say, and I certainly can't  
5 predict what I'm going to ask him. No one  
6 over here on my side of the table can  
7 predict what I'm going to ask him. If you  
8 look at the bags under their eyes, and  
9 you'll see that.

10 THE COURT: I do expect a vigorous  
11 cross-examination, but think, Mr. Motley,  
12 your argument does go to the weight, and I  
13 will duly note your request when it comes  
14 time for a rebuttal case, if there is one.

15 MR. OHLEMEYER: Your Honor, one  
16 other thing.

17 THE COURT: Yes.

18 MR. OHLEMEYER: I may have confused  
19 some matters yesterday by my nomenclature.  
20 I would like to ask Dr. Carchman about the  
21 chronic inhalation study that occurred  
22 between the subchronic and the ongoing  
23 lifetime study. This study actually is not  
24 connected. But what I would like to ask  
25 him, about the chronic --

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1 THE COURT: You can go back.

2 MR. OHLEMEYER: -- and the results  
3 of it, and the fact that it was submitted  
4 for publication.

5 MR. MOTLEY: Judge, that doesn't  
6 help us a bit. Why didn't they produce what  
7 has been submitted for publication. They've  
8 not produced it. He says there's a couple  
9 tables that they've given us, they've never  
10 identified from whence it came. I'm in the  
11 same situation. They claim nothing is



12 relevant after 1992. They produced nothing  
13 after 1992. They didn't produce this study  
14 that he now says is finished and submitted  
15 for publication pursuant to the subpoena, so  
16 this is just another variation on what we  
17 argued for 20 minutes yesterday.

18 THE COURT: I'm not sure it is.

19 MR. OHLEMEYER: It's different.

20 MR. MOTLEY: Why can't they produce  
21 this stuff when they ask them for it, Judge?

22 MR. OHLEMEYER: That's an entirely  
23 different issue. First of all, this  
24 subpoena didn't ask for anything like that.  
25 Second of all, he gave these tables to

7683

1 Ms. Ritter and said they were from their  
2 unpublished, or from Hausermann's  
3 unpublished work. I think she was certainly  
4 on notice, she could have asked him a lot of  
5 questions about this stuff. All I want to  
6 do is ask him about it. It's not going to  
7 take a lot of time.

8 MR. MOTLEY: Judge, you know, we've  
9 had an experiment conducted right in the  
10 middle of the trial. We've got data that's  
11 coming out from the World Health  
12 Organization, and now you've got stuff that  
13 we asked for in a request to produce that  
14 they refused to produce. They still haven't  
15 produced the study. He may have given us  
16 some tables, but he hasn't produced the  
17 study and the analysis of the underlying  
18 data.

19 Now what's he going to do, hand it to  
20 me right now before I start to cross-examine  
21 somebody. At some point in time, a  
22 defendant has to bear the burden of not  
23 producing things pursuant to court rules.

24 THE COURT: How far are you going  
25 to go with this?

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1 MR. OHLEMEYER: I'm going to ask  
2 him if they did a chronic study, what a  
3 chronic study is, what the results were and  
4 whether they submitted it for publication.  
5 That's all.

6 MR. MOTLEY: That's all. What the  
7 results are, and if they have been submitted  
8 for publication. They submitted it for  
9 publication, but they don't submit it to us  
10 when we ask for it in a request to produce.  
11 They don't submit it to us. How is this  
12 fair?

13 MR. OHLEMEYER: Your Honor, there  
14 comes a point where a lawyer decides how  
15 they're going to conduct a deposition and  
16 what questions they're going to ask him, and  
17 whether they think they've exhausted the  
18 witness' knowledge on things. They had an  
19 opportunity to depose this man, they had  
20 pieces of this information, and whether or  
21 if they pursued the line of inquiry isn't my  
22 problem.

23 MR. MOTLEY: We did pursue.  
24 MR. OHLEMEYER: They had a 26(b)(4)  
25 interrogatory response, they had a

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1 deposition, they had data from this study on  
2 the issues we're talking about and that's  
3 where we are.

4 MR. MOTLEY: We asked for  
5 everything he relied on, not a word, not a  
6 peep about a chronic inhalation study  
7 uttered from his mouth on page 8. We showed  
8 you that yesterday. It was not a peep from  
9 him about that, and at some point in time,  
10 Your Honor, it's just -- I mean, here I am,  
11 I'm literally conducting discovery in the  
12 middle of the defendants' case. How could  
13 they get away with not producing the stuff  
14 to us, Judge?

15 You wouldn't let me come in here with a  
16 picture of the lady if we hadn't produced it  
17 beforehand. I don't understand why we have  
18 a request to produce that they refuse to  
19 produce things, and then they walk in here  
20 in the middle of the trial and produce it.

21 THE COURT: No, that's not  
22 precisely the issue. I think what  
23 Mr. Ohlemeyer proposes is fair. I'll permit  
24 him to do that.

25 There was an issue brought up the other  
7686

1 night about --

2 MR. MOTLEY: Judge, can we have the  
3 study? If he's got the study, can we at  
4 least look at --

5 THE COURT: Do you have a copy of  
6 the study?

7 MR. OHLEMEYER: I don't know if I  
8 do, but the witness probably does.

9 THE COURT: All right. Find that  
10 before he testifies.

11 There was an issue about Dr. Bennett's  
12 CV. Do you have a copy of that, Mr. Motley?

13 MR. MOTLEY: I can find one.

14 THE COURT: I have it right here.  
15 Never mind. It's been marked Plaintiffs'  
16 Exhibit 94. I've thought about  
17 Mr. Ohlemeyer's arguments: Number one, that  
18 he didn't have an opportunity to examine the  
19 witness about questions asked, and  
20 especially if it is to be admitted. I've  
21 thought about that argument. I went back  
22 and reviewed the examination that was  
23 conducted to Dr. Bennett. It seemed to me  
24 that his background was explored fully and  
25 fairly by Mr. Ohlemeyer.

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1 Of course, there is always the  
2 possibility, we have a witness in Ohio, and  
3 he could be recalled if desired. So I think  
4 under all the circumstances, Plaintiffs' 94  
5 will be admitted.

6 And you'll provide the copy of the  
7 study before he testifies, and we'll bring

8 the jury in in five minutes.  
9 (Plaintiffs' Exhibit(s) 94 received in  
10 evidence.)  
11 MR. MOTLEY: Judge, how much time  
12 did you give us?  
13 THE COURT: Five minutes enough,  
14 five minutes enough or would you like ten?  
15 MR. MOTLEY: I would like to look  
16 at the study.  
17 THE COURT: All right. Take ten.  
18 (A brief recess was taken.)  
19 MR. CASSELL: All rise.  
20 THE COURT: Be seated. Good  
21 morning, ladies and gentlemen.  
22 ALL: Good morning.  
23 THE COURT: Jury appears in its  
24 entirety, together with all three  
25 alternates. We are on direct examination of  
7688

1 Richard Carchman.  
2 Is Dr. Carchman here?  
3 MR. OHLEMEYER: Yes, he is, Your  
4 Honor.  
5 THE COURT: Raise your right hand.  
6 DEFENDANTS' WITNESS, RICHARD CARCHMAN, SWORN  
7 THE COURT: Have a seat, please.  
8 Doctor, would you again state your name  
9 for the jury.  
10 THE WITNESS: Richard Carchman.  
11 THE COURT: Thank you.  
12 Mr. Ohlemeyer.  
13 MR. OHLEMEYER: Thank you, Judge.

14 DIRECT EXAMINATION (CONT.)  
15 BY MR. OHLEMEYER:  
16 Q Doctor, just a last question or two on the  
17 issue of P53. Does a G to T transversion at  
18 codon 157 in gene P53 -- is that event  
19 specific to a particular type of cancer?  
20 A No.  
21 Q Is it specific to a cancer that begins in  
22 one particular place in the body?  
23 A No.  
24 Q Is it specific to a particular substance or  
25 cause that's associated with the cause of  
7689

1 cancer?  
2 A No.  
3 Q Doctor, we talked yesterday about some tests  
4 that have been done and were ongoing at  
5 Philip Morris. You told us about a  
6 subchronic inhalation test. Do you remember  
7 that?  
8 A Yes.  
9 Q Is there also -- has there also been what is  
10 called a chronic inhalation study done?  
11 A Yes.  
12 Q What is the difference between a chronic  
13 inhalation study and a subchronic inhalation  
14 study?  
15 A Generally speaking, it's the duration of  
16 exposure. A subchronic study normally is 90  
17 days or less of exposure. A chronic study  
18 can be up to one half the life span of the

19 animal. In the case of a rat, it might be  
20 12 months.  
21 Q And has Philip Morris conducted a chronic  
22 inhalation study involving room-aged  
23 sidestream smoke?  
24 A Yes.  
25 Q And do you use room-aged sidestream smoke as

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1 a surrogate for environmental tobacco smoke?  
2 A Yes.  
3 Q Have the results of this study been  
4 submitted to a journal for publication?  
5 A Yes.  
6 Q What were the results of that study?  
7 A The results were really quite similar to the  
8 results that I discussed briefly yesterday  
9 on the subchronic study. We did not find  
10 any new changes. We didn't see any  
11 progression in any of the transient changes  
12 that we saw in the 90 days of exposure.  
13 Q And the lifetime study is ongoing?  
14 A Yes. We've done -- the one-year interim  
15 sacrifice was done in December of last year.  
16 Q And so when that study is completed, will  
17 the results of that study be submitted for  
18 publication?  
19 A Yes.

20 MR. OHLEMEYER: Thank you, Doctor,  
21 that's all the questions I have.

22 THE COURT: Thank you, Counselor.  
23 Mr. Motley.

24 MR. MOTLEY: Just give me one  
25 second, Your Honor.

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1 THE COURT: All right.  
2 MR. MOTLEY: Good morning, Doctor.  
3 Good morning, ladies and gentlemen.  
4 Judge, is it my imagination, or is it  
5 still warm in here?  
6 THE COURT: It still is warm and  
7 I'm still working on it.  
8 MR. MOTLEY: If you can't get it  
9 solved, I'm sure the rest of they can. I  
10 was going to blame Mr. Cassell.

11 CROSS-EXAMINATION

12 BY MR. MOTLEY:

13 Q By the way, Dr. Carchman, when you joined  
14 Philip Morris, you went from a one-tie man  
15 to at least a two-tie man. I notice you've  
16 got on a different tie.  
17 A But if I'm here one day more, you'll see the  
18 tie I wore yesterday.  
19 Q We'll see the same one?  
20 A Yes.  
21 Q At least maybe you can borrow some of  
22 Mr. Riley's ties. He wears pretty splendid  
23 looking ones every now and then.

24 I take it from your testimony,  
25 Dr. Carchman, that you have some scientific

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1 doubt about whether environmental tobacco  
2 smoke causes lung cancer in nonsmokers;  
3 correct?

4 A Yes, sir.  
5 Q I take it you believe that there is a  
6 scientific controversy about environmental  
7 tobacco smoke causing lung cancer in  
8 nonsmokers?  
9 A What do you mean scientific controversy?  
10 THE COURT: Doctor, you're going to  
11 have to speak up a little bit.  
12 A I'm not sure what you mean by scientific  
13 controversy.  
14 Q Well, don't you know that one of the  
15 companies in this case put out a press  
16 release yesterday about there being a  
17 scientific controversy about environmental  
18 tobacco smoke and lung cancer?  
19 MR. OHLEMEYER: May we approach for  
20 a moment, Your Honor?  
21 THE COURT: All right.  
22 (Bench discussion)  
23 Q Don't you know, Doctor, that Philip Morris  
24 has maintained for 15 years that there is a  
25 scientific controversy -- and I can show you

7693

1 some ads if you'd like -- about whether or  
2 not environmental tobacco smoke causes lung  
3 cancer in nonsmokers?  
4 A Is there a question?  
5 Q Yes. My question is: Don't you know that  
6 the company that you're with has taken the  
7 position that there is a scientific  
8 controversy about environmental tobacco  
9 smoke and this ability to cause lung cancer  
10 in nonsmokers?  
11 A Yes, sir.  
12 Q Okay. Have you ever heard of the Tobacco  
13 Institute's Truth Squad?  
14 A No.  
15 Q You joined Philip Morris as a consultant in  
16 what year, sir?  
17 A Middle '80s. '85, '86.  
18 Q And when you formally joined the company in  
19 1988 --  
20 A Yes, sir.  
21 Q -- you received a large salary increase, did  
22 you not?  
23 A Yes.  
24 Q And stock, and stock options that are  
25 valuable?

7694

1 A Not when I joined.  
2 Q You acquired those; correct?  
3 A Yes.  
4 Q And your salary now with bonuses in 19- -- I  
5 believe 1995 was approximately --  
6 MR. OHLEMEYER: Objection, Your  
7 Honor, relevance.  
8 MR. MOTLEY: Your Honor, I'll  
9 debate the relevance of it, but if he's  
10 serious about it, I guess we ought to come  
11 to the bench.  
12 MR. OHLEMEYER: I have no objection  
13 to the stock question, but I think the  
14 salary question is irrelevant.

15 MR. MOTLEY: Your Honor, I think it  
16 goes to --  
17 THE COURT: Overruled. You can  
18 answer.  
19 Q Let me just ask you this question. A year  
20 ago or so, your salary and bonuses  
21 approached \$250,000?  
22 A Yes, sir.  
23 Q And you have over \$150,000 worth of stock or  
24 stock options, don't you?  
25 A Yes, sir.

7695

1 Q You told us yesterday --  
2 MR. MOTLEY: May I approach the  
3 witness, Your Honor?  
4 THE COURT: Yes.  
5 Q This is a transcript from yesterday. I want  
6 you to look at that and then I'll ask you a  
7 question about it.  
8 A Yes, sir.  
9 Q I want to focus on your testimony yesterday  
10 about P53 and -- is it alfatoxin or  
11 aflatoxin?  
12 A Afla.  
13 Q Aflatoxin. And do you recall yesterday  
14 Mr. Ohlemeyer asked you what, if anything,  
15 does the data that you have reviewed with  
16 respect to the P53 analysis tell you about  
17 the type of -- can you associate the  
18 observations in this case, in this data,  
19 with any particular type of cancer based  
20 upon the material found in the database.  
21 You were talking about the IARC database;  
22 right?  
23 A I was talking more than just the database.  
24 Q That's what this question says and you made  
25 that statement, okay.

7696

1 A Yes.  
2 Q Your answer was: "The only material that  
3 seems to have some general feeling by the  
4 scientific community as being a very  
5 specific marker for P53 mutation is  
6 aflatoxin." That's what you said yesterday?  
7 A Yes, sir.  
8 Q I want you to confirm, sir, that this is the  
9 IARC database that Mr. Ohlemeyer asked you  
10 about.  
11 A I'm trying to find the year on this.  
12 Q Let me look and see if I can find that for  
13 you.  
14 Well, this was just downloaded by  
15 Mr. Riley. This is this year.  
16 A Okay.  
17 Q Would you confirm that this is information  
18 about the database about which you  
19 testified?  
20 A It appears it is.  
21 MR. MOTLEY: I'd like to mark this,  
22 Your Honor, as the next exhibit.  
23 THE COURT: All right.  
24 MR. MOTLEY: Would you show it,  
25 please. Can we zoom in?

Q In fact, the database, sir, talks about P53 mutations as DNA fingerprints in different cancers, and here is the aflatoxin, and you talked about this yesterday. That's a form of liver cancer; right?

A Yes, sir.

Q And then it says skin carcinoma from sunlight, various types of cancers from vinyl chloride and lung cancer from tobacco smoke, doesn't it?

A Yes, sir.

Q Now, Dr. Carchman, I want to go over some other things with you now.

MR. MOTLEY: Your Honor, this is in evidence. May I have Mr. Cassell give this to the jury? It's already in evidence.

THE COURT: All right. What's this marked?

MR. MOTLEY: 9648, Your Honor.

THE COURT: Do you have a copy of it, Mr. Ohlemeyer?

MR. OHLEMEYER: Yes, I do, Your Honor.

THE COURT: All right.

Q Doctor, have you learned -- have you met

Helmut Wakeham?

A Yes.

Q Would you agree that at one time he was the vice president in charge of research and development for Philip Morris?

A Yes.

Q And you know, do you not, that Joseph Cullman, III, was the number one man at the company for a while?

A Yes, sir.

Q Are you familiar with the Council for Tobacco Research?

A Vaguely.

Q Look at No. 2. "It has been stated that CTR is a program to find out 'the truth about smoking and health.' What is truth to one is false to another. CTR and the industry have publicly and frequently denied what others find as true. Let's face it. We are interested in evidence which we believe denies the allegation that cigarette smoking causes disease."

Now, sir, isn't it true that as of 1998 -- and please listen carefully to my question. If you can read my writing,

you're in good shape, but let me read it to you and read it in the record.

"Philip Morris' position in 1998 is that not one American has developed a lung cancer caused --" I ain't talking about risk factors now -- "caused by cigarettes."

That's your position, that's the position of Mr. Bible, the chairman of your board, and that's the position of Philip Morris, is it not?

11 A Not that I'm aware of.  
12 Q So your testimony is that Philip Morris  
13 believes that an American has died caused by  
14 cigarette smoke; correct?  
15 A No, I didn't say that.  
16 Q Well, does Philip Morris believe that a  
17 single American citizen has ever developed a  
18 lung cancer caused by cigarettes?  
19 A Are you still referring to Mr. Bible?  
20 Q I'm referring to you right now, and I'm  
21 going to get to Mr. Bible.  
22 A So I should restate the question then: Is  
23 it my position?  
24 Q Is it your position that an American citizen  
25 has ever developed a lung cancer caused by

7700

1 smoking cigarettes?  
2 A I don't know.  
3 Q You don't know. Well, are you aware --  
4 MR. MOTLEY: This is exhibit, for  
5 the record, ma'am, 12888. Did you pick that  
6 up when I'm over here? This is Exhibit  
7 12888.  
8 THE COURT: It's already in  
9 evidence?  
10 MR. MOTLEY: Yes, sir.  
11 Q First, do you know who Dr. Myron Johnson is?  
12 A Yes.  
13 Q Is he still with the company?  
14 A I don't believe so.  
15 Q Was he with the company at any time when you  
16 were employed by the company?  
17 A Yes.  
18 Q And who is Jack Nelson?  
19 A Jack Nelson is head of operations for Philip  
20 Morris U.S.A.  
21 Q And that would make him vice president  
22 level?  
23 A Senior vice president.  
24 Q Well, do you see the subject here, and this  
25 is in 1991, this is two months after

7701

1 Ms. Wiley died, and he references those  
2 434,175 deaths allegedly caused by smoking.  
3 Now, you know, sir, that the Center for  
4 Disease Control publishes estimates of how  
5 many Americans die every year caused by  
6 smoking cigarettes, don't you?  
7 A Yes.  
8 Q And the number of 434,000 is a lot of  
9 citizens dying from cigarette smoking, if  
10 the number is true? If that were a true  
11 number, that would be a lot of people,  
12 wouldn't it?  
13 A Yes, sir.  
14 Q How many people does Philip Morris agree are  
15 killed every year by cigarette smoking?  
16 A I don't know. I don't believe the company  
17 knows either.  
18 Q Well, Mr. Johnson in this memo said, "I set  
19 out to find even one of those 434,000  
20 people," and do you know what he concluded,  
21 sir?



22 A No, I don't. I don't remember.  
23 Q Look at page 6.  
24 MR. MOTLEY: Are we short one? I'm  
25 sorry.

7702

1 Q "I couldn't find a single one of those  
2 434,175 bodies." As of the year that  
3 Mildred Wiley died, Dr. Johnson said not a  
4 single one of those 434,175 bodies could he  
5 find. Didn't he say that?  
6 A Yes.  
7 Q And as you sit here today, can you tell the  
8 ladies and gentlemen of the jury whether  
9 your company is able to tell this jury and  
10 this Court whether a single one of the 430  
11 some -- excuse me. 430 some thousand people  
12 who died in 1997, according to the federal  
13 government, caused by smoking cigarettes,  
14 can you tell us whether you will agree that  
15 a single one of those died?  
16 A I just don't know.  
17 Q You don't. And Dr. Johnson also says in  
18 this document that he doesn't much care how  
19 people die. Is that the official position  
20 of Philip Morris?  
21 A Where does he say that?  
22 Q Page 5, sir. Under "Regional Differences."  
23 A Um-hum.  
24 Q "Actually, I don't much care what people die  
25 of. Everybody dies sooner or later, even

7703

1 nonsmokers. Although the health theologians  
2 would have us believe otherwise."  
3 Dr. Carchman, I know you didn't make  
4 this statement, but you were with the  
5 company when this was made, weren't you?  
6 A Yes.  
7 Q Are you ashamed of this statement?  
8 A I'm not sure I quite understand what he's --  
9 what he means here. I'd have to spend some  
10 time and reread it. I see I was copied on  
11 this in '91, Mr. Motley, but I'd have to go  
12 back and look at it within the context of  
13 what he's trying to convey. But just  
14 looking at that, the words that you've just  
15 conveyed, the way you've conveyed them, it  
16 has a negative connotation associated with  
17 it.  
18 Q Well, I read what he said, didn't I?  
19 A You read two sentences of a six- or  
20 seven-page document.  
21 Q Right.  
22 A Yes, sir.  
23 Q Now, Dr. Carchman, you are currently a man  
24 of considerable influence at Philip Morris,  
25 and you're dully proud of that, aren't you?

7704

1 A Some people listen to me.  
2 Q The jury has seen the deposition in this  
3 case of Mr. Geoffrey Bible, and I think he  
4 spells it like the English do,  
5 G-E-O-F-F-R-E-Y, Bible. You know Mr. Bible,  
6 don't you?

7 A Yes, sir.  
8 Q And tell the ladies and gentlemen of the  
9 jury who he is.  
10 A He's the chief executive officer of the  
11 corporation.  
12 Q The number one man?  
13 A Yes, sir.  
14 Q Or as I have used the term in this trial,  
15 the main man?  
16 A Number one man.  
17 Q Okay. And he told the jury that Philip  
18 Morris manufactures two billion cigarettes a  
19 day. Are you familiar with that figure?  
20 A Not that figure, no.  
21 Q I don't mean that they manufacture them for  
22 sale in the United States at the tune of two  
23 billion, because you export cigarettes from  
24 your plants to other countries, don't you?  
25 A Yes, sir.

7705

1 Q Does Philip Morris sell cigarettes in  
2 Canada?  
3 A I'm not sure whether we do it directly or  
4 under licensee. I'm not sure.  
5 Q Do you know whether or not Philip Morris  
6 sells -- manufactures cigarettes under  
7 license, but manufactures them in the United  
8 States?  
9 A Yes.  
10 Q And what brand would that be?  
11 A There are several brands that they  
12 manufacture.  
13 Q Give me a couple.  
14 A Marlboro, Benson & Hedges, Merit.  
15 THE COURT: Keep your voice up,  
16 Doctor.  
17 THE WITNESS: Oh, I'm sorry.  
18 Q I don't have a pack of Canadian Marlboros,  
19 but I've got a pack of Canadian Camels here.  
20 Do you know --  
21 MR. OHLEMEYER: At this point, I  
22 object to the question. I'm not sure we've  
23 established that there is such a thing as a  
24 Canadian Marlboro.  
25 MR. MOTLEY: I thought I had asked

7706

1 him if they made cigarettes in the United  
2 States that they sold in Canada. I thought  
3 he said yes.  
4 THE COURT: Overruled.  
5 A I said I don't know.  
6 Q You don't know. Well, have you ever seen a  
7 pack of Marlboros or Merit or anything that  
8 has the warning label on it "Tobacco smoke  
9 causes fatal lung disease in nonsmokers"?  
10 A Yes.  
11 Q You have. And are those manufactured in  
12 Richmond?  
13 A I don't know.  
14 Q Are they manufactured in the United States?  
15 A I don't know.  
16 Q Well, Dr. Carchman, isn't it a fact that if  
17 you were -- if your company was so inclined,

18 they could put that warning label on  
19 Marlboro, couldn't they?  
20 A No.  
21 Q You have seen packs of Marlboro?  
22 A I've seen packs of cigarettes that have had  
23 such warning labels.  
24 MR. MOTLEY: Give me one second.  
25 We're about to purchase one of your

7707

1 products, because I want to ask you  
2 something about it, and I thought we had one  
3 here. We've got the Australian Marlboro.

4 Have you ever seen the Marlboro  
5 manufactured in or sold in Australia?

6 A Yes.

7 Q Now, back to Mr. Bible. Mr. Bible testified  
8 before this jury, I asked him the question:  
9 "Does your company, Philip Morris, accept --  
10 accept or agree that people with asthma have  
11 their asthmatic condition aggravated by  
12 people who smoke around them?" Let me say  
13 that again.

14 "Does your company accept that people  
15 with asthma have their asthmatic condition  
16 aggravated by people who work around them?"

17 And Mr. Bible's answer is: "Well, I  
18 think that is probably right, yes."

19 Do you agree with the chairman of the  
20 board of Philip Morris that environmental  
21 tobacco smoke aggravates preexisting asthma?

22 A Can I give more than a yes or no?

23 Q You give me a yes or no, and then you can  
24 explain.

25 A Maybe.

7708

1 Q Maybe.

2 A And if I can explain?

3 Q Go ahead.

4 A The Center for Indoor Air Research has been  
5 funding and continues to fund research in  
6 this area. And in some studies that have  
7 been published in the peer-reviewed  
8 literature, it would appear that a small  
9 subset of people who describe themselves as  
10 being smoke sensitive seem to exhibit small  
11 changes, but measurable changes, in their  
12 respiratory patterns as a result of exposure  
13 to high levels of environmental tobacco  
14 smoke.

15 Q Okay.

16 MR. MOTLEY: Your Honor, we would  
17 mark this. This is a learned treatise  
18 that's been testified about previously. I  
19 will just mark it. It obviously won't go  
20 into evidence, but I would like to show it  
21 to the jury.

22 THE COURT: All right.

23 MR. OHLEMEYER: Well, Your Honor, I  
24 object to that procedure. I don't think  
25 that -- it could be read to the jury. I

7709

1 don't think it should be shown to the jury.

2 MR. MOTLEY: I don't see the

3 difference from reading or showing.  
4 THE COURT: I'm not sure there is.  
5 Plaintiffs' Exhibit 96, you're going to ask  
6 the witness about it?  
7 MR. MOTLEY: Yes.  
8 THE COURT: Ladies and gentlemen,  
9 this is not in evidence. It is used to help  
10 you evaluate the opinion of the doctor here.  
11 MR. MOTLEY: Judge, could I swap  
12 copies with you? This one is marked.  
13 BY MR. MOTLEY:  
14 Q Doctor, this article by Dr. Guerin was  
15 testified about, it's a February 1998  
16 article, it was testified about by  
17 Dr. Burns. Do you know who Dr. Burns is?  
18 A Yes, sir.  
19 Q And you know he's a lung specialist?  
20 A Yes, sir.  
21 Q He's worked with the Surgeon General over a  
22 period of time?  
23 A Yes, sir.  
24 Q And are you familiar with this conclusion  
25 that ETS exposure is common among children,

7710

1 the reported prevalence of asthma, wheezing  
2 and chronic bronchitis was increased with  
3 ETS exposure. ETS appears to increase the  
4 prevalence of asthma, rather than the  
5 severity. These findings reinforce the need  
6 to reduce the --

7 MR. OHLEMEYER: Excuse me. If  
8 you're going to read the paragraph, I think  
9 you have to read the whole paragraph rather  
10 than skip sentences.

11 THE COURT: Read the whole  
12 paragraph.

13 MR. MOTLEY: All right. Start  
14 over.

15 Q "ETS exposure is common among children?"

16 MR. MOTLEY: Do you folks see where  
17 I am in the conclusion?

18 Q "In the United States, the reported  
19 prevalence of asthma, wheezing, and chronic  
20 bronchitis was increased with ETS exposure.  
21 No statistically significant increase in the  
22 prevalence of upper respiratory infection,  
23 pneumonia or cough was associated with ETS  
24 exposure. ETS exposure has little effect on  
25 the respiratory health of children between

7711

1 three and five years of age, with the  
2 exception of asthma. ETS appears to  
3 increase the prevalence of asthma rather  
4 than the severity as measured by medication  
5 use. These findings reinforce the need to  
6 reduce the exposure of young children to  
7 environmental tobacco smoke."

8 First question, Doctor: Are you  
9 familiar with this study?

10 A Yes.

11 Q And, Doctor, does Philip Morris accept or  
12 dispute the fact, as reported here, that  
13 little children who have asthma are affected

14 by ETS?  
15 A They can be.  
16 Q They can be. So you would agree, then, that  
17 there are children in America who are  
18 adversely affected by secondhand smoke?  
19 MR. WAGNER: Asked and answered.  
20 THE COURT: Overruled. You may  
21 answer.  
22 Q Your company, you accept that fact?  
23 A They might.  
24 Q No, sir. I'm asking you yes or no, if you  
25 can. If you say I don't know, that's fine.

7712

1 But does your company accept that there are  
2 children in America who are adversely health  
3 affected by secondhand smoke?  
4 A There might be some children.  
5 Q Well, you told us about all these studies  
6 you've done. Has Philip Morris gone out and  
7 tried to find out how many children in  
8 America are affected by secondhand smoke?  
9 A Actually, we've gone a little bit further  
10 than that, sir.  
11 Q All right. Well, tell me how many children  
12 are affected by secondhand smoke.  
13 A Well, first of all, in all of these studies,  
14 nobody measures secondhand smoke. It's  
15 based on asking people if they remember how  
16 many cigarettes were smoked by that  
17 individual or in that particular household.  
18 That's the primary method that people use in  
19 ascertaining information. It's by  
20 questionnaire.  
21 Q Right.  
22 A Okay. The second is that, again, through  
23 the Center for Indoor Air Research, we have  
24 been funding extensive amount of research in  
25 this area, and recently held a meeting,

7713

1 supported a meeting in Jackson Hole, Wyoming  
2 with some of the leaders in the United  
3 States in this area, and they're putting  
4 together a monograph on this for  
5 publication.

6 And I am going to be leaning very  
7 heavily on the results of this monograph in  
8 terms of trying to come to terms with this  
9 particular issue.

10 When you talk about children in the  
11 home, you can't simply focus on reported ETS  
12 exposure. You have to look at the  
13 conditions in the home. And there are lots  
14 of things in the home that have been  
15 significantly associated and mechanistically  
16 determined to be very important for asthma.

17 Q Is the answer to my question yes, Philip  
18 Morris agrees some kids have been adversely  
19 affected by secondhand smoke, or is it no,  
20 or is it you just don't know?

21 A We're trying to find out.

22 Q You're trying to find out. Meanwhile, how  
23 many cigarettes are you selling every day?

24 A In the United States?

25 Q Yes. 7714

1 A About a million cigarettes a day.

2 Q A million?

3 A A billion, sorry.

4 Q A billion.

5 A Sorry.

6 Q A billion.

7 Dr. Carchman, the chief executive

8 officer of your company agreed that one of

9 the rights of Philip Morris' consumers is to

10 have a safe product. Do you agree?

11 A I don't -- I'm not aware of any such

12 statement. I just don't -- I don't know.

13 Q Let me ask you, without respect to what

14 Mr. Bible said, do you agree that one of the

15 rights of Philip Morris consumers is to have

16 a safe product?

17 A I don't know what he means by a safe

18 product. In terms of what I mean by a safe

19 product -- is that the question?

20 Q Well, do you believe, sir, as a senior vice

21 president of research and development, that

22 the consumers of your products and their

23 families are entitled to have a safe product

24 to consume?

25 A First, I'm only a vice president and I'm not

7715

1 in R & D. But I am a vice president in

2 Philip Morris. And I don't know what you

3 mean by a safe product.

4 Q You don't know.

5 A No, I don't.

6 Q So you're selling a billion cigarettes a

7 year. A year or a day?

8 A Almost a billion a day.

9 Q A billion cigarettes a day and you don't

10 know what's a safe cigarette and what's not;

11 is that what you're telling us?

12 A Sir, there are federally-mandated warning

13 labels that are put on each pack of

14 cigarettes that we manufacture and sell in

15 the United States.

16 Q And which pack of cigarettes says there may

17 be children in America who are adversely

18 affected by the parents smoking in the home?

19 Which pack says that?

20 MR. OHLEMEYER: Objection, Your

21 Honor, argumentative.

22 MR. MOTLEY: No, Your Honor.

23 THE COURT: Overruled.

24 Q You don't have such a thing on your

25 cigarettes, do you?

7716

1 A The federal government would have to mandate

2 it.

3 Q No, sir.

4 MR. MOTLEY: Your Honor, I ask

5 under Rule 105 --

6 MR. OHLEMEYER: Objection. Move to

7 strike Mr. Motley's comment on the evidence.

8 MR. MOTLEY: Your Honor has issued

9 a ruling in this case and I would ask that

10 the witness be instructed with respect to  
11 that under Rule 105.  
12 MR. OHLEMEYER: No, that's  
13 entirely --  
14 MR. MOTLEY: Can we approach?  
15 THE COURT: All right.  
16 (Bench discussion)  
17 THE COURT: Go ahead, Mr. Motley.  
18 Q Dr. Carchman, are you unaware that the Court  
19 has ruled on this matter of warning labels?  
20 MR. OHLEMEYER: Objection, Your  
21 Honor. Relevance.  
22 THE COURT: Sustained.  
23 A I'm not sure I understand your question.  
24 THE COURT: You don't have to  
25 answer it.

7717

1 MR. MOTLEY: You don't have to  
2 answer it.  
3 Q Tell me, sir, on this pack of cigarettes  
4 here, now, I found -- somebody went and  
5 bought a pack of cigarettes for me. You got  
6 a Surgeon General's warning on there, don't  
7 you?  
8 A Yes, sir.  
9 Q And you also have additional information on  
10 here, don't you? What does that say?  
11 A Underaged sale prohibited.  
12 Q Underaged sale prohibited.  
13 MR. MOTLEY: Move this into  
14 evidence, Your Honor.  
15 THE COURT: 97. Any objection?  
16 MR. OHLEMEYER: No, Your Honor.  
17 THE COURT: 97 will be admitted.  
18 (Plaintiffs' Exhibit(s) 97 received in  
19 evidence.)  
20 MR. MOTLEY: Give me one second.  
21 Your Honor. This is in evidence. Can I  
22 pass this out to the jury?  
23 Q Dr. Carchman --  
24 MR. MOTLEY: If you folks will look  
25 on the pack right here, can you see this,

7718

1 this part? I don't know which side you're  
2 looking at. Has everybody got this side  
3 right there?  
4 Q Mr. Bennett LeBow, you know him, don't you?  
5 A Not personally.  
6 Q Well, you know he testified your company  
7 paid his legal fees. Did you know that?  
8 A No.  
9 Q Do you know Mr. LeBow testified to the jury  
10 that Liggett & Myers started putting an  
11 additional warning label on there; do you  
12 see that?  
13 MR. OHLEMEYER: Objection, Your  
14 Honor.  
15 MR. WAGNER: Objection to questions  
16 based on testimony of other witnesses.  
17 THE COURT: Sustained to that  
18 question, precise question.  
19 Q Go ahead, sir, tell me whether or not you  
20 see an additional warning label on there.

21 A It says, "Warning: Smoking is addictive."  
22 THE COURT: You have to keep your  
23 voice up, Doctor.

24 THE WITNESS: Sorry.

25 Q It says, "Warning: Smoking is addictive";  
7719

1 doesn't it?

2 Sir, do you believe that Philip Morris  
3 has a duty not to make misleading or false  
4 statements about its products?

5 A Yes, sir.

6 Q I wrote up here "Our products are not  
7 injurious to health." Is that true or  
8 false, sir?

9 A What are you referring to specifically?

10 Q I'm asking you if Philip Morris makes the  
11 statement "Our products are not injurious to  
12 health," is that true or false?

13 A Did Philip Morris make -- I'm not aware of a  
14 Philip Morris statement that makes that.

15 Q If Philip Morris said that, would that be  
16 true or false?

17 A It would be false.

18 Q It would be false.

19 A Yes, sir.

20 Q It would be misleading, wouldn't it?

21 A If it were made, it could also be  
22 misleading.

23 Q Did you know that your company confessed in  
24 1953 to having made false health claims  
25 about its cigarettes?

7720

1 MR. OHLEMEYER: Objection, Your  
2 Honor. Argumentative.

3 MR. MOTLEY: I don't think it's  
4 argumentative. And the document is in  
5 evidence.

6 THE COURT: You can answer that yes  
7 or no.

8 A I have no knowledge of that.

9 Q You have no knowledge that Philip Morris  
10 confessed in 1953 to having made false  
11 statements.

12 A No, sir.

13 Q Are you unaware, sir, that in 1954 Philip  
14 Morris took out an ad, along with others, in  
15 350 some newspapers saying our products are  
16 not injurious to health?

17 A I'm not aware of that. This is 1954?

18 Q Yes, sir. January 6. It says, "We accept  
19 an interest in people's health as a basic  
20 responsibility paramount to every other  
21 consideration in our business."

22 Is that statement true today, sir, that  
23 Philip Morris believes the public health is  
24 paramount to making money?

25 A I don't know how to answer such a question.

7721

1 All I can say is that we have taken the  
2 allegations made against our product in a  
3 very serious way.

4 Q Well, so can you tell us as a vice president  
5 of Philip Morris whether it's true in 1998



6 that Philip Morris -- you see they signed  
7 this over here, didn't they? You see on the  
8 right that people signed it?  
9 A I see names of individuals. I don't see any  
10 signatures. But I see the names.  
11 Q You see Mr. Cullman, don't you?  
12 A Yes.  
13 Q You see Philip Morris by Parker McComas,  
14 don't you? Right above RJ Reynolds?  
15 A Yes, sir.  
16 Q Can you tell the ladies and gentlemen of the  
17 jury, as vice president of Philip Morris,  
18 will Philip Morris today accept an interest  
19 in the public health as a basic  
20 responsibility paramount to every other  
21 consideration in your business?  
22 A I can't speak for Philip Morris, but I think  
23 it's an important -- it's an important  
24 concept that you're speaking to.  
25 Q Can you tell me whether Philip Morris'

7722

1 corporate philosophy in 1998 is as stated in  
2 that document in 1954?  
3 A There are many things that it says here.  
4 Q That one statement, sir.  
5 A Can you direct me?  
6 Q I'm going to go to the others. It's right  
7 there on the second paragraph, under No. 4.  
8 "We accept an interest in people's health."  
9 A I see it. I see it.  
10 Q Can you tell me, sir, whether or not that is  
11 the corporate guiding credo of Philip Morris  
12 in 1998?  
13 A I hope so.  
14 Q All right. Now, right below it it says, "We  
15 believe the products we make are not  
16 injurious to health."  
17 Do you see that they made that  
18 statement?  
19 A Yes, sir.  
20 Q "We always have and always will cooperate  
21 closely with those whose task it is to  
22 safeguard the public health."  
23 Do you see that?  
24 A Yes, sir.  
25 Q Are you aware, sir, that the Food and Drug

7723

1 Administration concluded that Philip Morris  
2 had withheld information from the Food and  
3 Drug Administration?  
4 MR. OHLEMEYER: Objection, Your  
5 Honor, it's hearsay, argumentative.  
6 MR. MOTLEY: The document is in  
7 evidence, Your Honor. It's in evidence,  
8 Judge. It's the findings of fact.  
9 THE COURT: You can answer.  
10 A I have no idea what you're talking about  
11 specifically.  
12 MR. MOTLEY: This is Exhibit 50182  
13 in evidence.  
14 Q I'll give you the whole document, but I've  
15 given you the summary, sir.  
16 MR. MOTLEY: 50182, the Food and

17 Drug Administration's findings of fact.  
18 Q Sir, look at the first page, the last  
19 sentence of the second paragraph.  
20 MR. MOTLEY: Do you folks have  
21 that? Executive summary, first page. It  
22 says page 1X at the bottom.  
23 Q You're familiar with what the Food and Drug  
24 Administration is, aren't you?  
25 A Generally.

7724

1 Q Well, you hold a degree in pharmacology?  
2 A That's correct.  
3 Q So you know what the Food and Drug  
4 Administration is, don't you?  
5 A Generally.  
6 Q It says, "Indeed, no products cause more  
7 death and disease than cigarettes and  
8 smokeless tobacco."  
9 Do you see that?  
10 A Yes, sir.  
11 Q They use the word "cause," don't they?  
12 A Yes, sir.  
13 Q Does Philip Morris agree with the Food and  
14 Drug Administration, sir, that no products  
15 cause more -- cause more death and disease  
16 than cigarettes and smokeless tobacco?  
17 A No.  
18 Q You don't. All right.  
19 At the last sentence on page 1: "FDA  
20 last considered whether cigarettes were  
21 drugs or devices in the late '70s." Were  
22 you aware of that?  
23 A Yes.  
24 MR. MOTLEY: On page X, ladies and  
25 gentlemen, at the top.

7725

1 Q "Since that time, substantial new evidence  
2 has become available to the FDA. This  
3 evidence includes the emergence of a  
4 scientific consensus that cigarettes and  
5 smokeless tobacco cause addiction to  
6 nicotine."  
7 Let me stop you right there.  
8 Does Philip Morris agree, sir, that  
9 there is an emerging scientific consensus  
10 that cigarettes and smokeless tobacco cause  
11 addiction to nicotine?  
12 A I think the position is that, given the  
13 change in the definition, that it would.  
14 Q Okay. Does Philip Morris have a warning  
15 label -- since now they agree with that --  
16 does Philip Morris put this warning label on  
17 Marlboros that smoking is addictive?  
18 A That's not a Marlboro.  
19 Q I know. I said do you put a warning label  
20 on Marlboros identical to L&M's warning that  
21 smoking is addictive?  
22 A As required by law, yes.  
23 Q You do put a "smoking is addictive" label?  
24 A I'm not sure if that's the precise words  
25 that are on there, sir.

7726

1 Q Well, here is your warning label right here,

2 sir. Isn't it true that Marlboro to this  
3 day does not produce a single pack of  
4 cigarettes, though they produce a billion a  
5 day, that has a warning label on it about  
6 addiction?

7 A If the government required, we would do it.

8 Q I'm not asking you whether the government  
9 required it. I said -- you only do it if  
10 the government requires you?

11 A That's the way we've behaved.

12 Q That's the way you've behaved, okay.

13 Sir, are you ashamed -- do you know  
14 Geoffrey Bible testified that he was ashamed  
15 of the company's conduct over the past three  
16 decades? Are you aware of that?

17 MR. OHLEMEYER: Objection, Your  
18 Honor, argumentative, hearsay, relevance.

19 MR. MOTLEY: Your Honor, it's a  
20 statement of the CEO. I'm asking if he  
21 knows about it.

22 THE COURT: Let me hear your  
23 question.

24 Q Are you aware that Geoffrey Bible, a week  
25 ago, under oath testified that he was

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1 ashamed of Philip Morris' record of  
2 cooperation with public health officials?

3 MR. OHLEMEYER: Same objection.

4 THE COURT: He can answer.

5 MR. WAGNER: Judge, it's also  
6 highly improper to question a witness about  
7 statements made in another venue outside the  
8 courtroom someplace, injecting into this  
9 matters that are extraneous to any matter in  
10 this case.

11 THE COURT: Noted and overruled.  
12 You may answer.

13 Q Are you aware of that?

14 A No, I'm not.

15 Q Back to this, sir.

16 MR. MOTLEY: We're still on page X,  
17 ladies and gentlemen.

18 MR. WAGNER: Judge, may we have a  
19 continuing objection to Counsel questioning  
20 the witness about a hearsay document?

21 MR. MOTLEY: This document is in  
22 evidence, Your Honor.

23 MR. WAGNER: I understand it's in  
24 evidence, Your Honor.

25 THE COURT: I'll show that,

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1 Counselor.

2 Go ahead, Mr. Motley.

3 MR. WAGNER: Thank you, Your Honor.

4 Q Right after the issue of addiction to  
5 nicotine in the third sentence on page X,  
6 the FDA said, "And the disclosure of  
7 thousands of pages of internal tobacco  
8 company documents detailing that these  
9 products are intended by the manufacturers  
10 to affect the structure and function of the  
11 human body."

12 Do you see that, sir?

13 A No, I don't.  
14 Q Page X.  
15 A Yes, I see it. Thank you.  
16 Q All right. Have you seen these thousands of  
17 pages of internal documents that were turned  
18 over sometime after 1970? I mean in 1995 to  
19 the FDA?  
20 A I've seen some of them.  
21 Q Turn, please, sir, to page X1.  
22 "The FDA found --" Item No. 2 under the  
23 Agency's determination. Do you see that,  
24 sir, on page X1?  
25 A Yes.

7729

1 Q -- "consumers use cigarettes and smokeless  
2 tobacco predominantly for pharmacological  
3 purposes, including sustaining their  
4 addiction to nicotine, mood alteration, and  
5 weight loss."  
6 Does Philip Morris agree with that  
7 finding, sir?  
8 A I don't think so, no.  
9 Q "No. 3. Manufacturers of cigarettes and  
10 smokeless tobacco know that nicotine in  
11 their products causes pharmacological  
12 effects in consumers, including addiction to  
13 nicotine and mood alteration, and that  
14 consumers use their products primarily to  
15 obtain the pharmacological effects of  
16 nicotine."  
17 Does Philip Morris agree with that,  
18 sir?  
19 A No, sir.  
20 Q "No. 4. Manufacturers of cigarettes and  
21 smokeless tobacco design their products to  
22 provide consumers with a pharmacologically  
23 active dose of nicotine."  
24 Does your company agree with that, sir?  
25 A No, sir.

7730

1 Q Would you please, sir, turn over to page  
2 XVIII. I believe that's a Roman for, "18.  
3 "The Food and Drug Administration found  
4 that the administrative record contains  
5 three decades of documents and other  
6 evidence from the major cigarette  
7 manufacturers."  
8 Now, you said you were aware of some of  
9 those documents. Would you agree with the  
10 FDA that some of the documents that they got  
11 in 1995 spanned back 30 years earlier to the  
12 '60s?  
13 A I think that's correct.  
14 Q "Most of which has only recently become  
15 available, establishes that the  
16 manufacturers do 'have in mind that their  
17 products will have and be used for  
18 pharmacological effects.'"  
19 Do you agree with that, sir?  
20 A No, sir.  
21 Q Do you see right down here, then they talk  
22 about Philip Morris. It says, "In internal  
23 documents, for instance, researchers for

24 Philip Morris called nicotine a powerful  
25 pharmacological agent with multiple sites of  
7731

1 action and a physiologically active  
2 substance which alters the state of the  
3 smoker by becoming a neurotransmitter and a  
4 stimulant." And they're quoting from a  
5 Philip Morris document.

6 Have you seen the document they're  
7 quoting from, sir?

8 A Possibly.

9 Q Down at the bottom of the page, first word  
10 "second."

11 A I haven't found it.

12 Q Bottom of page -- well, let's see here. I  
13 guess it's going to be on page 19. Yes,  
14 sir. Page XIX. I'm not too good at math,  
15 so if I misstate what the Roman numeral is,  
16 if you'll help me with that, Doctor.

17 MR. MOTLEY: On the top of that  
18 page, folks, page XIX.

19 Q "Second, the evidence establishes that the  
20 cigarette manufacturers have conducted  
21 extensive research to understand precisely  
22 how nicotine affects the structure and  
23 function of the body."

24 Is that true, sir?

25 A We have conducted extensive research to  
7732

1 understand how nicotine works, yes, sir.

2 Q "In one year alone, Philip Morris conducted  
3 16 different studies on the effects of  
4 nicotine on the human brain."

5 Are you aware of that?

6 A I believe so, yes.

7 Q Now, the last paragraph says, "Third, the  
8 evidence shows that the manufacturers know  
9 that one of the pharmacological effects of  
10 nicotine is to cause and sustain addiction."

11 Does Philip Morris agree with the  
12 finding of the federal government in that  
13 regard?

14 A No, we don't.

15 Q Okay. Over to page XX. At the bottom,  
16 fifth, where it says "Fifth."

17 "The evidence shows that in their  
18 internal documents, the cigarette  
19 manufacturers expressly refer to cigarettes  
20 as devices for the delivery of nicotine.  
21 For instance, researchers for Philip Morris  
22 have described cigarettes as a dispenser for  
23 a dose unit of nicotine and as a nicotine  
24 delivery device."

25 Are you familiar with that Philip  
7733

1 Morris document, sir?

2 A Generally speaking, yes.

3 Q Is it true that Philip Morris considers a  
4 cigarette as a nicotine delivery device?

5 A My recollection that this was a memo from  
6 one scientist in R & D and did not reflect  
7 the opinion of R & D or of the company. And  
8 I think it's also taken out of context, but

9 it's been a long time since I've looked at  
10 that document.  
11 Q Yes, sir. Dr. Carchman --  
12 MR. MOTLEY: One second, Your  
13 Honor, please.  
14 Q You mentioned yesterday a protege and now a  
15 colleague of yours, Dr. Jim Charles. Do you  
16 remember that?  
17 A Yes, sir.  
18 Q Is he still with the company?  
19 A No. He retired.  
20 Q The jury has heard from Dr. Tom Osdene who  
21 was a scientist with your company. Did you  
22 know or do you know Dr. Osdene?  
23 A Yes, to both.  
24 Q You knew him as a colleague and now you  
25 still know him?

7734

1 A That's correct.  
2 Q Are you and he friends?  
3 A We speak to each other from time to time.  
4 Q When you joined the company, what was his  
5 position?  
6 A He was a vice president. I can't recall the  
7 precise title, but I don't believe he was in  
8 R & D.  
9 Q Sir, are you aware of documents, Philip  
10 Morris documents that talk about burying  
11 data, destroying memos, shipping documents  
12 to Europe?  
13 A Only from media reports, sir.  
14 Q Would you agree with the chairman of your  
15 board that he's ashamed and embarrassed by  
16 those documents, sir?  
17 MR. OHLEMEYER: Objection, Your  
18 Honor, it's argumentative.  
19 MR. MOTLEY: Judge, it's not.  
20 THE COURT: He can answer.  
21 A If, indeed, he said that, I would agree with  
22 him.  
23 Q You would agree. Well, personally, are you  
24 ashamed and embarrassed by such  
25 conversations and documents by researchers

7735

1 at Philip Morris?  
2 A If Dr. Osdene or any of his associates said  
3 that, yes, sir, or wrote that, yes, sir.  
4 MR. MOTLEY: Your Honor, we move  
5 the admission of 10788 against Philip Morris  
6 only.  
7 MR. OHLEMEYER: Same objection you  
8 sustained the last time it was offered, Your  
9 Honor.  
10 MR. MOTLEY: Your Honor, that was a  
11 different reason that time. These are the  
12 handwritten notes of Dr. Osdene.  
13 MR. OHLEMEYER: Excuse me.  
14 MR. MOTLEY: Produced by Philip  
15 Morris.  
16 MR. OHLEMEYER: I would be very  
17 happy to examine Mr. Motley if he was going  
18 to testify but --  
19 (Bench discussion)

20 Q Doctor, is this one of the documents, sir,  
21 that you have looked at?  
22 A I've not -- if I can read it.  
23 Q Go ahead and read it to yourself if you  
24 don't mind.

25 THE COURT: For the record this is  
7736

1 10788.

2 MR. MOTLEY: Yes.

3 A I have not seen this before.

4 Q All right. Do you recognize the "ship all  
5 documents to Cologne"? I want to know what  
6 Cologne is.

7 A Cologne is a city in Germany where INBIFO is  
8 located.

9 Q All right. And look at No. 6.

10 A I'm sorry. I can't read it.

11 Q No. 6?

12 A Yes. If you wouldn't mind reading it.

13 Q Well, I can't do that yet. I have to ask  
14 you some foundational questions first.

15 A I can't read it.

16 Q Okay. Look at No. 7.

17 A I can read the first two words and the last  
18 word.

19 Q Okay. You can read Rylander; right?

20 A Yes, sir.

21 Q And who is Rylander?

22 A If this is the Rylander I know, this is  
23 Ragnar Rylander who is a scientist in the  
24 University of Gotheberg in Sweden.

25 Q Do you see the word "INBIFO"? You were  
7737

1 asked about that yesterday.

2 A Yes, sir.

3 Q Do you recognize the handwriting of  
4 Dr. Thomas Osdene, sir?

5 A No, I don't.

6 Q You worked with him for how many years?

7 A Actually, we worked in totally different  
8 facilities. I don't think I've ever seen  
9 any of his handwriting.

10 Q All right. Do you know whether or not  
11 Dr. Osdene had information from INBIFO sent  
12 to his home rather than the office?

13 A I have no knowledge of that, sir.

14 Q When you were a consultant to Philip Morris,  
15 before you joined the company, you guys  
16 communicated verbally? You didn't put it in  
17 writing, did you?

18 A You guys, sir?

19 Q Well, you as a consultant and whoever you  
20 were dealing with at the company or the  
21 lawyers.

22 A No lawyers. Jim Charles.

23 Q And you dealt verbally and not in writing;  
24 right?

25 A That's correct.

7738

1 MR. MOTLEY: Your Honor, 10791 is  
2 in evidence.

3 THE COURT: All right. Thank you.

4 MR. MOTLEY: Are we missing one?

5 Q Doctor, do you know who William Dunn is or  
6 was?  
7 A Never met the gentleman. I have some  
8 recollection of who he was.  
9 Q And you know he was with Philip Morris?  
10 A Philip Morris R & D, yes, sir.  
11 Q And Dr. Osdone, you've already mentioned;  
12 correct?  
13 A Yes, sir.  
14 Q And you know Carolyn Levy, don't you?  
15 A Yes, sir.  
16 Q Do you see the second sentence, third  
17 sentence here, the third line, "If, however,  
18 the results with nicotine are similar to  
19 those gotten with morphine and caffeine, we  
20 would want to bury it. Accordingly, there  
21 are only two copies of this memo, the one  
22 attached and the original which I have."  
23 Were you aware of such a conversation,  
24 sir, prior to this day?  
25 A I'm aware of this memo, sir, yes.

7739

1 Q Now, sir, are you aware of a law firm called  
2 Covington & Burling?  
3 A Yes, sir.  
4 Q Tell the jury how you are aware of Covington  
5 & Burling.  
6 A From my first time as a consultant to Philip  
7 Morris, Covington & Burling represents the  
8 U.S. tobacco companies who were required by  
9 law to submit a list of ingredients added to  
10 tobacco in the manufacture of cigarettes.  
11 So each of the six companies -- five  
12 companies would submit their individual  
13 lists by hand to Covington & Burling, and  
14 then Covington & Burling would assemble the  
15 list, such that it was transparent which  
16 company was supplying which ingredients.  
17 And then this list was transmitted with  
18 a letter to whoever was the head of the  
19 Office of Smoking and Health saying that we  
20 are providing you this list in accordance  
21 with the Cigarette Labeling and Advertising  
22 Act, and also adding a note that, if they  
23 wanted to, that the industry and Covington  
24 would be willing to get together and discuss  
25 any issues they had with this information.

7740

1 Q All right. So you worked with Covington &  
2 Burling at least on that project; correct?  
3 A Yes, sir.  
4 Q All right. Did you know Mr. Rupp?  
5 A I know Mr. Rupp.  
6 Q Mr. Rupp -- by the way, you know Covington &  
7 Burling also generally represents the  
8 Tobacco Institute, don't you?  
9 A I think I do know that, yes.  
10 Q And Mr. John Rupp is another lawyer with  
11 Covington & Burling, isn't he?  
12 A Yes, sir.  
13 Q And you know Mr. Remes, too, don't you?  
14 A I think I've met Mr. Remes once or twice.  
15 Q And you know he's also with Covington &



16 Burling; right?  
17 A Yes, sir.  
18 Q And Philip Morris has an international  
19 division, don't they?  
20 A Yes, sir.  
21 Q And they have a European division, don't  
22 they?  
23 A Yes, sir.  
24 Q And tell the ladies and gentlemen of the  
25 jury who Dr. -- I can't remember his first  
7741

1 name, and I'm not going to try to pronounce  
2 his last name, and I think I spelled his  
3 name right, G-A-I-S-C-H?  
4 A Dr. Helmut Gaisch.  
5 Q He pronounces it Gaisch?  
6 A Gaisch.  
7 Q Gaisch. Who is he?  
8 A He's a retired scientist who was at Philip  
9 Morris in Neuchatel, Switzerland.  
10 Q He was with Philip Morris in Switzerland?  
11 A Yes, sir.  
12 Q And what about Mr. Oxberry?  
13 A I'm unfamiliar with that name.  
14 Q Now, on February 17, 1988, what were you  
15 doing?  
16 A Getting ready to celebrate my birthday.  
17 Q Well, happy birthday to you.  
18 A Thank you, sir.  
19 Q I'm about to pass a birthday here, I'm  
20 afraid.  
21 Were you with the company, is what I  
22 meant?  
23 A I didn't get to the company until the last  
24 day of December of '88.  
25 Q Okay.

7742

1 MR. MOTLEY: Your Honor, this is in  
2 evidence. This is Exhibit 21747.  
3 Do we have enough, Mr. Cassell?  
4 MR. CASSELL: I think we need one  
5 more, Mr. Motley.  
6 MR. MOTLEY: Can I swap with you,  
7 Judge? Because this one is marked up.  
8 Here you go, Mr. Cassell.  
9 MR. CASSELL: Thank you, sir.  
10 Q Dr. Carchman, this document, 21747, is in  
11 evidence. And do you see present Dr. Gaisch  
12 from Philip Morris and Mr. Oxberry, they say  
13 from Philip Morris, but you don't know him?  
14 A No, I don't.  
15 Q Okay. Are you familiar with Dr. Sharon  
16 Boyse?  
17 A Sharon Boyse.  
18 Q Boyse.  
19 A Yes, sir.  
20 Q Do you know her?  
21 A Yes, sir.  
22 Q Who is she with?  
23 A I think she's with B&W now.  
24 Q Okay. Brown & Williamson?  
25 A Yes, sir.

7743

1 Q And are you familiar with the cigarette  
2 company called Gallaher?  
3 A Yes, sir.  
4 Q And they're in Great Britain?  
5 A Yes, sir.  
6 Q And what about Imperial?  
7 A I'm familiar with that company as well.  
8 Q And they're in Great Britain?  
9 A Yes, sir.  
10 Q Of course, there is Mr. Remes' name from  
11 Covington & Burling in the United States.  
12 Now, were you aware that Philip Morris  
13 was presenting a global strategy on  
14 environmental tobacco smoke to the British  
15 cigarette industry in 1988?  
16 A No, sir.  
17 Q You don't know anything about that?  
18 A No, sir.  
19 Q Do you know anything about the  
20 recommendation that there be a team of  
21 scientists organized by one national  
22 coordinating scientist on -- this is the  
23 first paragraph on the summary -- by one  
24 national coordinating scientist and American  
25 lawyers to review scientific literature or  
7744

1 carry out work on ETS? Were you aware of  
2 that?  
3 A No, sir.  
4 Q "To keep the controversy alive." Do you see  
5 that?  
6 A It's hard for me to read it, but --  
7 Q It says to keep --  
8 MR. MOTLEY: Can everyone read  
9 this? If you can't, I'll try to get a  
10 better copy.  
11 Q "To review scientific literature or carry  
12 out work on ETS to keep the controversy  
13 alive."  
14 A I found it.  
15 Q You found that, okay.  
16 And "they are spending vast sums of  
17 money to do so." Were you aware of that,  
18 sir?  
19 A No, sir.  
20 Q Now, down at the bottom of the page, sir,  
21 "Philip Morris' strategy is perhaps  
22 questionable in some respects, e.g. of  
23 lawyers at such a fundamental scientific  
24 level." Do you see that, sir?  
25 A Yes, sir.

7745

1 Q Are you aware they were involving lawyers in  
2 ETS science in 1988?  
3 A No, sir.  
4 Q Page 2, No. 3. "Dr. Gaisch said that their  
5 strategy on environmental tobacco smoke had  
6 been established in the United States at a  
7 meeting between Philip Morris and Covington  
8 & Burling, the lawyers acting for the  
9 Tobacco Institute of the United States."  
10 Were you aware of that meeting, sir?  
11 A No, sir.

12 Q "At a later date RJ Reynolds was also  
13 brought in to support some of their U.S.  
14 activities, one of these being the Center  
15 for Indoor Air Research."  
16 No. 4 --  
17 Now, let me ask you this: You're aware  
18 Reynolds is part of CIAR now; right?  
19 A I said so yesterday, yes, sir.  
20 Q "The Philip Morris --" No. 4 -- "philosophy  
21 of ETS was presented. This appeared to  
22 revolve around the selection in all possible  
23 countries of a group of scientists either to  
24 critically review the scientific literature  
25 on ETS, to maintain controversy, or to carry  
7746

1 out research on ETS."  
2 Sir, were you aware that Dr. Gaisch was  
3 proposing that they do research to create  
4 controversy?  
5 A No, I wasn't.  
6 Q Were you aware, sir, that the jury has seen  
7 a document dated 1972?  
8 MR. MOTLEY: Your Honor, this is in  
9 evidence, 1409.  
10 I'm not done with the other one though,  
11 yet, Your Honor. I'm not done with the  
12 Gaisch.

13 THE COURT: All right. We'll keep  
14 that.  
15 Q Look at the first page, please,  
16 Dr. Carchman, the second paragraph. Do you  
17 see this is dated 1972? Did you know who  
18 Mr. Kornegay was?  
19 A No, sir.  
20 Q What about Mr. Panzer?  
21 A No, sir.  
22 Q "For nearly 20 years this industry has  
23 employed a single strategy to defend itself  
24 on three major fronts: Litigation, politics  
25 and public opinion. While the strategy was  
7747

1 brilliantly conceived and executed over the  
2 years, helping us win important battles, it  
3 is only fair to say that it is not, nor was  
4 it intended to be a vehicle for victory. On  
5 the contrary, it has always been a holding  
6 strategy consisting of creating doubt about  
7 the health charge without actually denying  
8 it."

9 Were you aware of such a strategy  
10 dating back to the 1950s sir?

11 A No, sir.

12 Q Back to the Gaisch document, if we might,  
13 the one we were talking about earlier, the  
14 one in February right during your birthday  
15 celebration.

16 A Yes, sir.

17 Q By the way, Doctor, how old a man are you?

18 A Fifty-five.

19 Q Fifty-five.

20 On No. 5, on page 2, "David Remes  
21 presented the approach of the United States  
22 lawyers, and said that he believed their

23 function to be to act as an intermediary  
24 between the consultants and industry and  
25 also to indicate 'areas of sensitivity' on

7748

1 ETS research."

2 Now, what area of sensitivity is there,  
3 sir, that the lawyers are to be worried  
4 about; do you know?

5 A Well, I haven't seen this memo, nor have I  
6 read it. I haven't got an idea on what --  
7 whoever wrote this, if I can just take a  
8 look for a second.

9 Q Dr. Boyse wrote it. Look at the last page.

10 A I have no idea what she had in mind when she  
11 wrote that.

12 Q She is now with Brown & Williamson; right?

13 A Yes.

14 Q David Remes goes on, he says, "He was not  
15 prepared to elaborate on these areas of  
16 sensitivity." Do you see that?

17 A Yes, sir.

18 Q "Or on the stage at which any filtering  
19 process would be carried out." Did I read  
20 that right?

21 A Yes, sir.

22 Q Now, Doctor, why would lawyers from  
23 Covington & Burling be filtering areas of  
24 sensitive research if, in fact, they were;  
25 do you know?

7749

1 A No idea.

2 Q Then he goes on to talk about "In the United  
3 States --" on still paragraph 5 -- "their  
4 strategy at first had been to meet  
5 short-term emergencies by presenting a team  
6 of witnesses such as Witorsch and Gray  
7 Robertson."

8 Did you know Gray Robertson, sir?

9 A I met him at OSHA, and I heard a seminar he  
10 gave once.

11 Q And are you aware that the Tobacco Institute  
12 called him their star, their top gun?

13 A No, sir.

14 Q Are you aware that he was, in a document the  
15 jury has seen, was called a good presenter  
16 of testimony, but a poor scientist?

17 A I have not seen such a document.

18 Q Does the Center for Indoor Air Research rely  
19 on Mr. Robertson's science if he's a poor  
20 scientist?

21 A Not since I've been there.

22 Q "He did, however, acknowledge that this kind  
23 of road show --" do you see those words from  
24 Dr. Boyse of Brown & Williamson? Do you see  
25 that, right under Mr. Robertson?

7750

1 A I'm trying. I'll get there.

2 Q Right under Mr. Robertson, it's about four  
3 or --

4 A I see it.

5 Q "He did acknowledge," he being Remes, the  
6 lawyer, "that this kind of road show would  
7 be likely to be acceptable in Europe."

8 Sir, do you know whether or not the  
9 Tobacco Institute created a road show of  
10 witnesses to go around and create doubt and  
11 controversy about environmental tobacco  
12 smoke?

13 A I'm not aware of that.

14 Q "The Center for Indoor Air Research that  
15 Philip Morris, RJR and Lorillard have set up  
16 in the U.S. was mentioned as a further  
17 development of this strategy."

18 What do you think "this strategy"  
19 refers to, sir?

20 A These are Dr. Boyse' notes at a meeting  
21 which I wasn't in attendance to, and this is  
22 the first time I've seen this memo, so I  
23 don't know how to answer your question.

24 Q All right. Page 3. No. 7. Excuse me, No.  
25 6.

7751

1 "Covington & Burling are proposing to  
2 set up an office in London to coordinate  
3 their European activities."

4 Do you know, sir, whether Covington &  
5 Burling opened up an office in London to  
6 coordinate ETS activities?

7 A I know they have an office in London.

8 Q You do. Have you been there?

9 A Yes.

10 Q Last sentence, "When asked, David Remes said  
11 of course they would be consulting British  
12 product liability lawyers 'where  
13 appropriate.'"

14 Do you know whether that was done?

15 A No idea.

16 Q No. 8. Talking about scientific consultants  
17 here, sir. "The consultants should ideally,  
18 according to Philip Morris, be European  
19 scientists who have had no previous  
20 connection with tobacco companies and who  
21 have no previous record on the primary issue  
22 which might, according to Remes, lead to  
23 problems of attribution."

24 What does that mean, sir? What do you  
25 understand that to mean? In other words,

7752

1 they're going to go out and get consultants  
2 who agree with the company before they hire  
3 them? Is that what it means?

4 A That's what it seems to say.

5 Q Well, do you think it's any mystery that  
6 scientists who have testified here all say  
7 that they don't know whether cigarette smoke  
8 causes lung cancer except for one?

9 MR. OHLEMEYER: Objection, Your  
10 Honor, it's argumentative.

11 THE COURT: Sustained.

12 Q "The mechanism by which they identify their  
13 consultants is as follows: They ask a  
14 couple of scientists in each country  
15 (Francis Roe and George Leslie in the  
16 U.K) --" do you know those gentlemen, sir?

17 A I know Sir Francis. I think I've met  
18 Dr. Leslie once.

19 Q -- "to produce --"  
20 MR. MOTLEY: You all see this in  
21 the middle of No. 8?  
22 Q -- "to produce a list of potential  
23 consultants. The scientists are then  
24 contacted by these coordinators or by the  
25 lawyers."

7753

1 Are you aware that lawyers are out  
2 recruiting consultants for the tobacco  
3 industry, sir?  
4 A I think I had some recollection that there  
5 was that kind of activity going on, yes.  
6 Q Well, when you -- you were contacted by  
7 another scientist, Dr. Charles. You weren't  
8 contacted by lawyers, were you?  
9 A That's correct.  
10 Q "The scientists are then contacted by these  
11 coordinators or by the lawyers and asked if  
12 they are interested in problems of Indoor  
13 Air Quality: Tobacco is not mentioned at  
14 this stage. CVs are obtained and obvious  
15 'anti-smokers' or those with 'unsuitable  
16 backgrounds' are filtered out."  
17 Doctor, in your scientific career,  
18 before you joined Philip Morris, were you  
19 ever aware of such an act going on, where  
20 you are looking for consultants and you got  
21 lawyers there filtering those who have  
22 opinions different from the company's  
23 position?  
24 A I've never been involved in anything like  
25 that before.

7754

1 Q You're ashamed of that, aren't you, I can  
2 tell.  
3 MR. OHLEMEYER: Objection, Your  
4 Honor, argumentative.  
5 MR. MOTLEY: I'll rephrase it.  
6 Q You are not proud of that process of Philip  
7 Morris, are you?  
8 A Well, I'm not saying it went on. This is  
9 what the notes of this memo basically say.  
10 Q If that did go on, that's not something you  
11 would be proud of, is it?  
12 A If it was for regulatory or litigation  
13 reasons, that could be different. But if it  
14 was for scientific purposes, I'd have a  
15 problem with that.  
16 Q Well, you know this document from which  
17 you've read so far is they're trying to set  
18 up a scientific coordinating committee,  
19 don't you?  
20 MR. OHLEMEYER: Objection, Your  
21 Honor, it's argumentative.  
22 THE COURT: He can answer that.  
23 Q Don't you?  
24 A I haven't read the entire document.  
25 Q Well, you know at the start it said we're

7755

1 talking about setting up a scientific  
2 coordinating committee.  
3 A That's what it says at the start but I have

4 no idea what it says in the middle and at  
5 the end.  
6 Q Okay.  
7 Let's go back to No. 8 on page 3. It  
8 says, "CVs are obtained and obvious  
9 'anti-smokers' or those with 'unsuitable  
10 backgrounds' are filtered out. The  
11 remaining scientists are sent a literature  
12 pack containing approximately 10 hours of  
13 reading matter and including 'anti-ETS'  
14 articles. They are asked for a genuine  
15 opinion as independent consultants, and if  
16 they indicate an interest in proceeding  
17 further, a Philip Morris scientist makes  
18 contact."  
19 "No. 9. Philip Morris then expect the  
20 group of scientists to operate within the  
21 confines of decisions taken by Philip Morris  
22 scientists to determine the general  
23 direction of research, which apparently  
24 would then be 'filtered' by lawyers to  
25 eliminate areas of sensitivity."

7756

1 Did you see that, sir?  
2 A Yes, sir.  
3 Q If that happened, sir, are you proud of  
4 that?  
5 A That's not the way we operate. I would not  
6 be pleased if, indeed, we operated this way.  
7 MR. MOTLEY: Turn, ladies and  
8 gentlemen -- the pages aren't numbered. You  
9 have to look at the side, the Bates numbers,  
10 as we call them. Look at, please, No. 335.  
11 I just gave you the last three numbers.  
12 Q Doctor, do you follow that okay?  
13 A Where are you, sir?  
14 Q Bates numbers are on the side of the page.  
15 Do you see them?  
16 A Yes.  
17 Q Look at Bates No. 335. I'm just giving you  
18 the last three numbers.  
19 MR. MOTLEY: Does everybody have  
20 that? Your Honor, may I show, make sure  
21 everybody's on the same page?  
22 MR. OHLEMEYER: Your Honor, I  
23 really don't think it's appropriate for  
24 Mr. Motley to be pointing things out to  
25 people. He can ask his questions.

7757

1 THE COURT: I agree.  
2 MR. MOTLEY: What's wrong with,  
3 Your Honor --  
4 THE COURT: Direct your questions  
5 to the witness. I'll instruct the jury.  
6 Do you all have that 335, this page?  
7 Q Do you have it, Doctor?  
8 A Yes, sir.  
9 Q "No. 14. Not only are Philip Morris active  
10 in the United States (via John Rupp of  
11 Covington & Burling) --"  
12 You've told us you knew him.  
13 A Yes, sir.  
14 Q -- "and the U.K. in Europe (via David

15 Remes) --" you told us you knew him -- "but  
16 other Covington & Burling lawyers have also  
17 been commissioned to coordinate Philip  
18 Morris' ETS activities in the Far East,  
19 Australia, South America, Central America,  
20 and Spain."

21 Were you aware, sir, that the lawyers  
22 were out there coordinating ETS?

23 A No.

24 Q Are you pleased with that?

25 A If it were for things other than litigation  
7758

1 and regulatory issues, it would be  
2 troubling.

3 Q Well, so far in what you've read, have you  
4 seen the word "regulatory" or "litigation"?

5 A Again --

6 Q I know you haven't read the whole thing.  
7 I'm just asking you so far. I'll be glad  
8 for you to take time to read the whole  
9 thing.

10 No. 15.

11 Are you familiar with the term "concert  
12 of action"?

13 A No, sir.

14 Q Joining hands and acting together as one  
15 voice. Are you familiar with that?

16 A Now that you've presented it that way, I  
17 understand what you're saying.

18 Q All right. "Although the industry is in  
19 great need of concerted effort and action in  
20 the ETS area --"

21 Are you aware that Dr. Boyse is  
22 reporting here at Brown & Williamson that  
23 there is a need for the industry to march  
24 together on this issue?

25 A That's what she seems to be saying here.  
7759

1 Q Well, with the exception of Liggett, that's  
2 what's going on, isn't it?

3 MR. OHLEMEYER: Objection, Your  
4 Honor, argumentative.

5 THE COURT: Overruled.

6 Q Isn't it all of you are together? All of  
7 you are denying that ETS causes cancer. All  
8 of you are saying that it doesn't hurt  
9 people. You all got the same party line  
10 except for Liggett, don't you?

11 MR. OHLEMEYER: Now it's an  
12 argument, Your Honor.

13 THE COURT: The last had a little  
14 bit of argument. Why don't you rephrase  
15 that.

16 Q You know what a party line is, don't you?

17 A I think I know what you're talking about,  
18 yes.

19 Q Well, the fact of the matter is, Doctor,  
20 ever how we characterize it, as of 1998,  
21 Philip Morris, Lorillard, Brown &  
22 Williamson, RJ Reynolds all have the  
23 identical position on environmental tobacco  
24 smoke science issues, don't they?

25 A I don't believe that's true.



1 Q Okay. Does Philip Morris agree that  
 2 environmental tobacco smoke causes lung  
 3 cancer in nonsmokers?  
 4 A No, it doesn't.  
 5 Q Does RJ Reynolds agree that environmental  
 6 tobacco smoke or secondhand smoke causes  
 7 lung cancer in nonsmokers?  
 8 A I don't know.  
 9 Q You don't know.  
 10 Doctor, let's finish this line 15.  
 11 "Although the industry is in great need of  
 12 concerted effort and action in the ETS area,  
 13 the detailed strategy of Philip Morris  
 14 leaves something to be desired. The  
 15 excessive involvement of external lawyers at  
 16 this very basic scientific level is  
 17 questionable."  
 18 Do you see that, sir?  
 19 A Yes.  
 20 Q They're talking about science and not  
 21 litigation there, aren't they?  
 22 A Again, it would appear so.  
 23 Q And that doesn't please you, does it? If  
 24 that's true, that doesn't please you, does  
 25 it?

1 A No, it doesn't.  
 2 Q You're not proud of that at all, are you?  
 3 A If, indeed, that is what this is reflective  
 4 of, it would -- I'm concerned.  
 5 Q You would be ashamed, wouldn't you?  
 6 A Concerned until I knew more, then I might be  
 7 ashamed.  
 8 Q "The excessive involvement of external  
 9 lawyers at this very basic scientific  
 10 lawyers is questionable and, in Europe at  
 11 least, is likely to frighten off a number of  
 12 scientists who might otherwise be prepared  
 13 to talk to the industry. Also, the rather  
 14 oblique initial approach may appear to be  
 15 somewhat less than honest to many  
 16 scientists."  
 17 You know what they're talking about  
 18 there, is they're talking about, remember  
 19 that other paragraph, they approach them  
 20 first and say we're interested in indoor air  
 21 quality and don't say anything about  
 22 cigarettes.

23 MR. OHLEMEYER: That's an argument,  
 24 Your Honor.

25 MR. MOTLEY: Your Honor, I'm

1 quoting exact word for word almost from an  
 2 item --  
 3 THE COURT: Sustain the objection.  
 4 Q Would you look back, please --  
 5 MR. MOTLEY: That's all right.  
 6 I'll use that in closing argument. If I'm  
 7 permitted.  
 8 Q "In the past the industry --"  
 9 MR. MOTLEY: I'm in the middle of  
 10 No. 15, folks.

11 Q "In the past the industry (at least in the  
12 United Kingdom) has had no difficulty  
13 approaching scientists directly. The idea  
14 of setting up a special group of consultants  
15 coordinated by one national coordinating  
16 scientist is also rather likely to frighten  
17 away scientists who would justifiably not  
18 wish to be associated with industry in this  
19 rather structured way or who would not wish  
20 to be part of what will inevitably be seen  
21 to be a pro-industry group, but who would be  
22 prepared to carry out exactly the same  
23 activities on an individual, and therefore  
24 less compromising, basis."

25 Is it your experience with scientists  
7763

1 that they don't want to feel like they're  
2 being crowded together and told what to do?

3 A Absolutely.

4 MR. MOTLEY: Your Honor, I have one  
5 more question about this document and then  
6 would be it be appropriate to take a break?

7 THE COURT: We will.

8 Q Look at the last page, please, sir.

9 "It must be appreciated that Philip  
10 Morris are putting vast amounts of funding  
11 into these projects: Not only in directly  
12 funding large numbers of research projects  
13 all over the world, but in attempting to  
14 coordinate and pay so many scientists on an  
15 international basis to keep the  
16 environmental tobacco smoke controversy  
17 alive."

18 Sir, were you aware that Dr. Boyse was  
19 of the opinion that Philip Morris was  
20 spending vast amounts of money to, among  
21 other things, keep the ETS controversy  
22 alive?

23 A No, I wasn't.

24 MR. MOTLEY: Your Honor, would it  
25 be an appropriate time to take a break? I'm  
7764

1 done with this document.

2 THE COURT: You may pass those  
3 down, ladies and gentlemen. Do we have all  
4 the exhibits? We'll break for 15 minutes.  
5 Remember, don't talk among yourselves about  
6 the testimony. The bailiff will get you  
7 when we're ready. You may go with the  
8 bailiff.

9 MR. CASSELL: All rise.

10 THE COURT: You may step down.

11 (A brief recess was taken.)

12 (Jury not present)

13 MR. OHLEMEYER: I want to clear  
14 something up, Your Honor. It's real simple,  
15 not controversial, but apparently they want  
16 Ms. Ritter here to do it.

17 It's not controversial. I may have  
18 confused things yesterday when I talked  
19 about the lifetime study as opposed to the  
20 chronic study. The chronic study that we  
21 talked about this morning is actually the

22 study that we sent to them, that they asked  
23 for during the deposition, and we sent it to  
24 them. So I think I caused some confusion by  
25 referring to the lifetime study and

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1 mistaking it for the chronic study.

2 There has been no lifetime study that's  
3 been published. That's ongoing. The  
4 testimony we heard this morning about the  
5 chronic study was, in fact, the study that  
6 we sent them two or three months ago, so I  
7 apologize for the conclusion.

8 But so the record is clear, the  
9 questions about the chronic inhalation  
10 studies, when related to a study that was  
11 sent to them, have been sent.

12 THE COURT: We'll show that. Thank  
13 you.

14 Bring in the jury.

15 MR. CASSELL: All rise.

16 (Jury present)

17 THE COURT: Be seated. All right.  
18 Jury back again with all three alternates.  
19 We are on cross-examination.

20 Doctor, again state your name for the  
21 record.

22 THE WITNESS: Richard Carchman.

23 THE COURT: All right. Mr. Motley,  
24 you may continue.

25 MR. MOTLEY: Your Honor, we would  
7766

1 move into evidence the two Australian  
2 Marlboro packs.

3 THE COURT: Mark them as one  
4 exhibit. 98.

5 Any objection?

6 MR. OHLEMEYER: No objection, Your  
7 Honor.

8 THE COURT: All right. 98 will be  
9 admitted.

10 (Plaintiffs' Exhibit(s) 98 received in  
11 evidence.)

12 MR. OHLEMEYER: Well, now, Your  
13 Honor, if I may, I do object to the  
14 relevance of packaging for Australia. I  
15 don't think there is any testimony in this  
16 case that connects Australia to the case.

17 THE COURT: I will show those  
18 admitted over objection of Mr. Ohlemeyer.  
19 98 will be admitted.

20 BY MR. MOTLEY:

21 Q Doctor, I want to ask you some questions  
22 about INBIFO. First, do you know who  
23 Mr. Goldsmith was, by any chance?

24 A Yes, sir.

25 Q And who was he?

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1 A He was a senior Philip Morris executive.

2 MR. MOTLEY: Your Honor, we move  
3 into evidence a document about -- let me do  
4 this first.

5 Q You were asked on direct about INBIFO and  
6 when Philip Morris acquired it. Do you

7 recall that?  
8 A Yes, sir.  
9 Q And this document is about the acquisition  
10 of INBIFO. Do you see that right under  
11 Mr. Wakeham's name?  
12 A Yes.  
13 MR. MOTLEY: Your Honor, we move  
14 into evidence this Exhibit 10789 against  
15 Philip Morris only.  
16 THE COURT: Do you have a copy?  
17 MR. OHLEMEYER: I do and no  
18 objection, Your Honor.  
19 THE COURT: 10789 will be admitted,  
20 ladies and gentlemen, only against Philip  
21 Morris only.  
22 (Plaintiffs' Exhibit(s) 10789 received  
23 in evidence.)  
24 Q Doctor, I believe the jury has this document  
25 now. Would you kindly look at the third  
7768  
1 paragraph of the first page. "Since we have  
2 a major program at INBIFO, and since this is  
3 a local where we might do some of the things  
4 which we are reluctant to do in this  
5 country, I recommend that we acquire INBIFO  
6 either in toto or to the extent of  
7 controlling interest."  
8 First question, sir, were you aware  
9 that Philip Morris had done research at  
10 INBIFO prior to 1970?  
11 A No.  
12 Q Can you share with us whatever insight you  
13 might have about the type of research that  
14 could not be done in the United States that  
15 Philip Morris had done in Europe?  
16 A I'm not aware of any.  
17 Q Are you aware, sir, of an animal study --  
18 and I bet you can pronounce this man's name.  
19 If he was living in the United States we  
20 would call him Dontewill, but since he's  
21 from Europe, what would we call him?  
22 A Dontewill.  
23 Q Are you aware that Dr. Dontewill reported to  
24 the cigarette company that's sponsored his  
25 research that he had produced a disease in  
7769  
1 animals exposed to smoke?  
2 A Yes, I'm aware of that.  
3 Q So, Doctor, if Dr. Dontewill advised the  
4 sponsors, cigarette companies, that animals  
5 had contracted disease from smoking, if the  
6 tobacco companies took out an ad after that  
7 and said that no such animal study had ever  
8 produced any disease in any animal, that  
9 would be false, wouldn't it?  
10 A If the scientific information that  
11 Dr. Dontewill -- Ws are Vs -- that he had  
12 done was a valid scientific study. If,  
13 indeed, it was a valid scientific study.  
14 Q And are you aware that in 1970, the research  
15 and development department of Gallaher --  
16 you do know Gallaher had a financial  
17 interest with American Tobacco, don't you?

18 A I believe so.  
19 Q That Gallaher, part of American Tobacco,  
20 reported in 1970 that Dr. Auerbach's study  
21 of beagles produced evidence beyond a  
22 reasonable doubt that cigarette smoking  
23 caused lung cancer? Are you aware of that?  
24 A I'm aware of Dr. Auerbach's study.  
25 Q No. But are you aware that the head of

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1 R & D of Gallaher's, part of American  
2 Tobacco Company, reported to his senior  
3 management that Dr. Auerbach's study, his  
4 words, "had proven beyond a reasonable doubt  
5 that cigarette smoking caused lung cancer"?

6 A I'm not aware of that at all.

7 Q You've never seen that?

8 A No, sir.

9 Q You've never seen that published either,  
10 have you?

11 A No, I haven't.

12 MR. MOTLEY: Your Honor, we move  
13 into evidence at this time against Philip  
14 Morris only Exhibit 14752.

15 MR. OHLEMEYER: No objection, Your  
16 Honor.

17 THE COURT: 14752 will be admitted  
18 only as to Philip Morris. You can pass the  
19 other ones down, ladies and gentlemen.

20 (Plaintiffs' Exhibit(s) 14752 received  
21 in evidence.)

22 Q Paragraph No. 1, sir. You see that copies  
23 are being sent to Dr. Osdene at the top,  
24 handwritten?

25 A Yes, sir.

7771

1 Q "The defensive research carried out on our  
2 behalf by INBIFO was not made public use  
3 of."

4 Do you know what that refers to?

5 A No.

6 Q Are you aware that we tried to ask  
7 Dr. Osdene -- are you aware generally that  
8 we tried to ask Dr. Osdene about shipping  
9 research projects to Europe?

10 A No, I'm not.

11 Q Doctor, I want to turn now to --

12 Who is Dr. Max Hausermann?

13 A Dr. Hausermann was an employee of Philip  
14 Morris, and I believe at one time headed  
15 research and development in Richmond.

16 Q And Dr. Robert Seligman was a successor to  
17 Dr. Helmut Wakeham, wasn't he, vice  
18 president?

19 A I think that's correct.

20 MR. MOTLEY: Your Honor, we move  
21 against Philip Morris only Exhibit 10790.

22 MR. OHLEMEYER: Lack of foundation.

23 MR. MOTLEY: It was produced by  
24 Philip Morris. The man knows the people  
25 involved and it's talking about Dr. Helmut

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1 Gaisch and INBIFO, which he asked about on  
2 direct.

3 THE COURT: Objection is noted and  
4 overruled. It will be admitted as to Philip  
5 Morris.

6 (Plaintiffs' Exhibit(s) 10790 received  
7 in evidence.)

8 Q Doctor, you've never seen this before, I  
9 take it?

10 A No, I haven't.

11 Q Do you know the people or some of the people  
12 who are referred to here? You mentioned  
13 Dr. Helmut Gaisch, and you told us who  
14 Dr. Hausermann is and told us who  
15 Dr. Seligman is. Let me ask you this  
16 question, sir: You see this is about  
17 INBIFO; right?

18 A Yes, sir.

19 Q This is after Philip Morris had acquired  
20 INBIFO; right?

21 A Yes.

22 Q It says --

23 MR. MOTLEY: The last sentence of.  
24 The first paragraph, folks.

25 Q "We have gone to great pains to eliminate  
7773

1 any written contact with INBIFO, and I would  
2 like to maintain this structure."

3 Doctor, why would a company that owns a  
4 laboratory go to great lengths to avoid  
5 written contact about smoking and health  
6 research?

7 A I don't know. This is not how we operate.

8 Q Today? It's not how you operate today?

9 A That's right.

10 Q And then it goes on to say -- do you know  
11 who Jerry Osmalov is?

12 A I know the name. I don't think I've ever  
13 met the person.

14 Q "I am advising Jerry Osmalov to continue  
15 sending --" this is the second paragraph,  
16 "samples to Neu- --" how do you pronounce  
17 that?

18 A Neuchatel.

19 Q "Neuchatel." Where is that, Germany?

20 A Switzerland.

21 Q "Switzerland for transshipment to INBIFO.  
22 If this procedure is unacceptable to you,  
23 perhaps we should consider a 'dummy' mailing  
24 address in Cologne --" is that how you  
25 pronounce that?

7774

1 A Cologne.

2 Q -- "Cologne for the receipt of samples."

3 Sir, do you know what a dummy mailing  
4 address is?

5 A No, I don't.

6 Q I mean, you've heard the term "dummy mailing  
7 address," haven't you?

8 A Yeah, but in this context, I don't know what  
9 they're talking about.

10 Q They're talking about pesticide residue  
11 samples. Do you see that in the first  
12 paragraph?

13 A Yes, I do.

14 Q Wouldn't you agree that it looks like  
15 they're trying to go a circuitous route to  
16 get stuff to INBIFO?  
17 MR. OHLEMEYER: Objection, Your  
18 Honor, argumentative.  
19 THE COURT: Sustained.  
20 Q That's not the normal way -- that's not the  
21 way you do business, dummy mailing addresses  
22 and send it to a third party who then  
23 carries it to another place, is it?  
24 A No, sir.  
25 Q Sounds secretive, doesn't it?

7775

1 A Sounds circuitous.  
2 Q And secretive?  
3 A Potentially, yes.  
4 Q Doctor, this is -- the address is a little  
5 cut off, but do you see the reference to  
6 Neuchatel at the top, very top?  
7 A Yes.  
8 Q And it says "interoffice correspondence"?  
9 A Yes.  
10 Q And a copy went to Mr. Bible that we've  
11 talked about over on the right; correct?  
12 A Yes.  
13 Q And this is by Dr. Gaisch of Philip Morris  
14 of Europe; correct?  
15 A Yes.  
16 Q And it's to Mr. Murray of Philip Morris;  
17 correct?  
18 A Yes.  
19 Q And look at the last page, sir. The  
20 concluding remarks. The guy writes worse  
21 than me. Do you see that?  
22 A We are just talking about --  
23 Q That scribbling down there. Couldn't forge  
24 his signature, could you?  
25 A The last page that says "concluding

7776

1 remarks," the two sentences?  
2 Q Yes, sir, then you've got some handwriting.  
3 A Some scribble, yes, I agree.  
4 Q And are you familiar with the Barclay Issue,  
5 the issue between Philip Morris and Brown &  
6 Williamson about the cigarette Barclay?  
7 A Only peripherally.  
8 Q Are you familiar with -- you're familiar  
9 that there was a --  
10 A Yes.  
11 Q Are you familiar with the term "cigarette  
12 equivalents" in connection with ETS?  
13 A Yes, sir.

14 MR. MOTLEY: Your Honor, we move  
15 the admission against Philip Morris of  
16 Exhibit 35835.

17 MR. OHLEMEYER: Your Honor, I have  
18 no objection to the portion that deals with  
19 the cigarette equivalents. I object to the  
20 rest of it as lacking foundation.

21 MR. MOTLEY: Let me look at it,  
22 Your Honor. I may be able to agree with him  
23 to save time.

24 THE COURT: All right.

25 MR. MOTLEY: Why don't I do this,  
7777  
1 Your Honor. I won't reference any of it and  
2 just have Mr. Cassell turn to Bates No. page  
3 106, and that would be the only thing that  
4 we would have the jury look at, and then I  
5 can clean this document up to where it's  
6 only the first page and 106 and 107.  
7 THE COURT: All right. You are  
8 only offering then page -- tell me what  
9 pages you're actually offering.  
10 MR. MOTLEY: The first page, Your  
11 Honor, which is Bates No. 101.  
12 THE COURT: All right.  
13 MR. MOTLEY: Then 106, 107 and the  
14 last page.  
15 THE COURT: No objection to that,  
16 Mr. Ohlemeyer?  
17 MR. OHLEMEYER: No, with the  
18 suggestion, Your Honor, that the top half of  
19 page 101 be --  
20 MR. MOTLEY: That's fine. I have  
21 no problem with that. We'll redact all the  
22 rest of it, Judge.  
23 THE COURT: All right. I can't  
24 show it to the jury, Counselor, at this  
25 point. That will be admitted, however, with  
7778

1 those modifications.  
2 (Plaintiffs' Exhibit(s) 35835 received  
3 in evidence.)  
4 Q Doctor, would you look at page 106.  
5 A 106 that Bates number?  
6 Q Yes. On the side.  
7 A Yes, sir.  
8 Q Do you see there's a discussion of  
9 environmental tobacco smoke monitoring?  
10 A Yes, I do.  
11 Q And look at page 107, please. "It is,  
12 therefore, wrong in principle to express  
13 levels of ETS in terms of cigarette  
14 equivalents, e.g., 'one cigarette in eight  
15 hours' or similar numbers, a mistake that  
16 regrettably even industry spokesmen  
17 sometimes make."  
18 Are you aware that Dr. Gaisch expressed  
19 that opinion to Dr. Murray and others,  
20 including Mr. Bible, in 1987?  
21 A No, I'm not.  
22 MR. MOTLEY: Your Honor, we'll get  
23 this cleaned up before we put them into  
24 evidence.  
25 THE COURT: All right.

7779

1 Q Doctor, were you involved in the preparation  
2 of ads relating to comparing environmental  
3 tobacco smoke with eating cookies, drinking  
4 chlorinated water or eating pepper?  
5 A Yes. I had an involvement.  
6 Q And are you aware, sir, that Dr. Wakeham  
7 compares smoking cigarettes to eating  
8 applesauce?  
9 A No, I'm not.



10 Q I have just three more areas, Your Honor,  
11 and I'll be done.  
12 Let's turn, Doctor, to your P53  
13 testimony, if we might, for a second, okay.  
14 You filed a report in this case.

15 Correct?

16 A Yes.

17 Q And you, in your report, you were, among  
18 other things -- I'm not saying this is all  
19 you were doing -- you were scientifically  
20 criticizing. I'll use that not in a  
21 pejorative term, but you were, as a  
22 scientist, were criticizing the report of  
23 another scientist. Correct? Or let's put  
24 it this way: Let's take the criticize out.  
25 You were analyzing Dr. Cagle's report and

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1 coming up with your own opinions; correct?

2 A That's correct.

3 Q All right. And Dr. Cagle, who is a  
4 pathologist and cancer specialist -- you  
5 know that, don't you?

6 A He's a pathologist, yes.

7 Q Dr. Cagle found a shift in G to T  
8 transversion at codon 157. I'm not saying  
9 that's the only thing he found, but amongst  
10 the things he found, that's what he found,  
11 didn't he?

12 A That's the -- he actually didn't find it.

13 Q The lab?

14 A The laboratory found it, yes, sir.

15 Q But he agreed with the finding?

16 A Yes, sir.

17 Q And would you agree with me, sir, that's  
18 what he found, and he drew conclusions that  
19 that demonstrated this was a lung cancer.  
20 You're familiar with that?

21 A Yes, sir.

22 Q Would you agree, sir, that in the 8,000 plus  
23 entries in the database that you talked  
24 about -- and I'm not asking you now whether  
25 you agree with what Dr. Cagle found, but

7781

1 just this question, okay? Would you agree  
2 that there is not among the 8,000 plus in  
3 the database a single case of a shift in G  
4 to T transversion at codon 157 for  
5 pancreatic cancer?

6 A I couldn't answer that off the top of my --  
7 off the top of my head.

8 Q Let me see if my molecular biologist  
9 colleague over here can help me with that.

10

11 MR. MOTLEY: May I approach the  
12 witness, Your Honor?

13 THE COURT: You may.

14 MR. MOTLEY: Help me out, will you.

15 Q Mr. Riley tells me that this is the database  
16 here. Are you familiar with that, that you  
17 can mash a button and get something like  
18 that out?

19 A Yes, I am.

20 Q You're familiar with that; right?

21 A And this is a hard copy printout from the  
22 database, yes.  
23 Q Would you agree with me, sir, if you take a  
24 moment and look at this, that you won't find  
25 the shift from G to T transversion at codon

7782

1 157 listed on that database for pancreatic  
2 cancer?

3 A Am I to assume that this is a complete  
4 rendition of the --

5 Q Mr. Riley asks you to assume that. He's the  
6 one that got it for me.

7 A Does this also -- if I may?

8 Q Yes, go ahead.

9 A Does this include only human, or does it  
10 also include cell culture-derived  
11 information?

12 Q Well, it's just the information on the  
13 database, Mr. Riley said.

14 A Well --

15 MR. OHLEMEYER: Excuse me, Your  
16 Honor, at some point Mr. Riley either has to  
17 testify or he has to stop talking.

18 MR. MOTLEY: He asked me the  
19 question, Mr. Riley got it, and I'm asking  
20 Mr. Riley. I'm a conduit here.

21 MR. OHLEMEYER: Which is why it's  
22 all objectionable.

23 THE COURT: Did they answer your  
24 question?

25 THE WITNESS: No.

7783

1 MR. MOTLEY: Your Honor, I know  
2 this is --

3 THE COURT: If you can't tell from  
4 looking at the document, you can tell us  
5 that.

6 A There is no way from looking at this  
7 document whether this is purely  
8 human-derived information or also derived  
9 from tissue culture, which the database  
10 contains both kinds -- both kinds of  
11 information.

12 Q Well, let me ask you this, Doctor: Whatever  
13 that is -- and I guess we'll have to call  
14 somebody to tell us what that is -- would  
15 you agree that on that document you've got  
16 in front of you, there is no G to T shift --  
17 well, here you go -- shift in G to T  
18 transversion at codon 157 for pancreatic  
19 cancer? Whatever that might be, it ain't on  
20 there, is it?

21 A It's not on this sheet. On these two  
22 sheets.

23 THE COURT: Mark that, Counselor.

24 MR. MOTLEY: Yes, we will, Your  
25 Honor.

7784

1 THE COURT: 99. That will be  
2 marked 99.

3 Q Were you asked, Dr. Carchman, by Counsel,  
4 the other side, to look at the database to  
5 answer the question that you just asked me?

6 A Please repeat the question.  
7 Q Were you asked to look at all the databases  
8 to find out if there is a shift in G to T  
9 transversion at codon 157 for pancreatic  
10 cancer?  
11 A Nobody asked me to do that.  
12 Q Doctor, I know you don't agree with the  
13 report of Dr. Cagle or the -- but let me ask  
14 you this: Did you know that Dr. Roggli  
15 testified in this case?  
16 A I was aware of that, yes.  
17 Q If -- this is a hypothetical question, okay?  
18 I know you don't agree with this, but just  
19 assume for a second that you were satisfied  
20 that the test was done properly, and that  
21 there was a shift in G to T transversion at  
22 codon 157, and I showed you this morning  
23 IARC says that, in addition to aflatoxin --  
24 you remember what I showed you when we  
25 started off, lung cancer in smokers?

7785

1 A Yes.  
2 Q -- was within that database. If you assume  
3 those two things, that it is in the database  
4 for lung cancer, and if you assume that  
5 Dr. Cagle's report was right, that is, there  
6 was a G to T shift, that is a piece of  
7 information, not the answer to the whole  
8 case, but is a piece of information that  
9 would suggest some DNA damage; correct?  
10 A And that was the basis for my report. It  
11 had nothing to do with how Dr. Cagle had the  
12 assay run.  
13 Q Right. If, in fact, it was found that  
14 that's what it was, that would be a piece of  
15 evidence, wouldn't it?  
16 A Yes, sir.  
17 Q Now, Doctor, I got one last thing I want to  
18 ask you about.  
19 You were asked, Doctor, about  
20 advertising, promotion, money spent on  
21 promotion, and money spent on research. Do  
22 you remember that?

23 A Yes, sir.  
24 Q Mr. Ohlemeyer asked you about that.  
25 MR. MOTLEY: Your Honor, we move  
7786

1 1391 against Philip Morris only in  
2 connection with research versus promotion.

3 MR. OHLEMEYER: I have no  
4 objection, Your Honor.

5 THE COURT: 1391 will be admitted  
6 as to Philip Morris only, ladies and  
7 gentlemen.

8 (Plaintiffs' Exhibit(s) 1391 received  
9 in evidence.)

10 Q Doctor, would you -- again, this is  
11 Dr. Helmut Wakeham with copies to  
12 Mr. Goldsmith and Mr. Cullman, the chairman,  
13 in 1970. Look at the last sentence of page  
14 1.

15 "My only other feeling along this line  
16 is that our industry could develop a more

17 favorable public impression by letting it be  
18 known that it is supporting quite a bit of  
19 unrestricted medical research as a pro bono  
20 publico gesture."

21 That means for the good of the public;  
22 right?

23 A Yes, sir.

24 Q "This, in my opinion, is actually the case  
25 with about half of our CTR and AMA

7787

1 expenditures. Maybe not intensely, but much  
2 of the grant work has little or no relevance  
3 to smoking and health, in my opinion."

4 Do you see that?

5 A Yes, sir.

6 Q "Why not capitalize on this fact by putting  
7 our contributions in this light instead of  
8 advertising them as a selfishly oriented  
9 program to get at the truth about smoking  
10 and health? Nobody believes we're  
11 interested in the truth on this subject.  
12 And the fact that a multibillion dollar  
13 industry has put up \$30 million for this  
14 research --" CTR -- "over a ten-year period  
15 cannot be impressive to a public which at  
16 the same time is told we spend upwards of  
17 \$300 million in one year on advertising."

18 Do you see that, sir?

19 A Yes, sir.

20 Q So he's saying in ten years they spent 30  
21 million at CTR, okay? Isn't that what it  
22 says?

23 A Yes.

24 Q And in ten years times 300 million equals  
25 three billion; right?

7788

1 A Yes, sir.

2 Q Can you help us with this math? Do you know  
3 what percent of this number would that  
4 number be?

5 A A very small percent.

6 Q Very small. Like -- watch me, see if I do  
7 this right. I believe, from math class,  
8 that's 30 million; right? And then you draw  
9 a line right here and you put 3,000,000,000;  
10 right?

11 A Yes, sir.

12 Q Do that for us.

13 A Just start scratching out zeros on the top  
14 and the bottom.

15 Q All right. One for one, one for one, one  
16 for one, one for one. Is this how you did  
17 it?

18 A Yeah.

19 Q I wish I would have had you teaching me. I  
20 might have been able to figure this out.  
21 Zero, zero, zero.

22 A So it's one one-hundredth, so it's 1, 1  
23 percent.

24 Q It's what?

25 A One-tenth of a percent, sir. I think.

7789

1 Q 1 -- .001?

2 A Yes.  
3 Q Now, Doctor, are you aware --  
4 A It's 1 percent. It's hard looking at an  
5 angle at this. You just divide -- then  
6 divide the top by three and the bottom by  
7 three and it's one one-hundredth or 1  
8 percent. .01.  
9 Q How about that?  
10 A Yeah. It's a small percent.  
11 Q Are you aware that the Federal Trade  
12 Commission evaluates how much the cigarette  
13 companies spend on promotion every year?  
14 A Not specifically, no.  
15 Q Have you ever seen this before?  
16 A No, I haven't.  
17 Q You were asked about this by Mr. Ohlemeyer;  
18 correct? Not about this document, but about  
19 how much money they spend on promotion?  
20 MR. OHLEMEYER: Excuse me, Your  
21 Honor. I object to this. I asked about  
22 advertising. There's a difference between  
23 advertising and promotion.  
24 THE COURT: I agree.  
25 MR. MOTLEY: Well, Your Honor --

7790

1 Q Advertising is part of promotion, isn't it?  
2 THE COURT: Rephrase your question.  
3 Q Is advertising part of promotion? I mean,  
4 promotion can be giving away tee shirts and  
5 cigarette lighters, sponsoring race car  
6 teams, and that's part of promotion, as is  
7 advertising, isn't it?  
8 A Probably so.  
9 Q And would it surprise you, sir, to know  
10 that -- would it surprise you that the  
11 Federal Trade Commission reported to  
12 Congress that --  
13 MR. OHLEMEYER: Your Honor, I  
14 object to Mr. Motley reading something  
15 that's not even --  
16 MR. MOTLEY: I move it.  
17 MR. OHLEMEYER: I object to its  
18 lack of foundation.  
19 MR. MOTLEY: I move the report of  
20 Congress in under the 803(6), I believe it  
21 is, Your Honor.  
22 MR. WAGNER: It's hearsay also,  
23 Your Honor.  
24 MR. OHLEMEYER: Also object to it  
25 under 403, Your Honor.

7791

1 THE COURT: This would be marked  
2 Plaintiffs' Exhibit 100. As an exception  
3 will be admitted.  
4 (Plaintiffs' Exhibit(s) 100 received in  
5 evidence.)  
6 MR. MOTLEY: Your Honor, we offer  
7 this chart, 1006, a compilation from  
8 information provided to us by Philip Morris.  
9 MR. OHLEMEYER: Then I object to  
10 this as lacking foundation and it's  
11 argumentative. It's appropriate for closing  
12 argument, perhaps, if it's based on evidence

13 in the case but at this point it's not  
14 admissible in this form as an exhibit.  
15 MR. MOTLEY: Your Honor, I have the  
16 data upon which this is based in this  
17 notebook. Perhaps the appropriate thing to  
18 do would be to ask -- to give Mr. Ohlemeyer  
19 a copy of it and maybe he can look at it  
20 during the lunch break? Would that be  
21 appropriate?  
22 THE COURT: All right.  
23 MR. OHLEMEYER: I have no  
24 objections to questions of the witness on  
25 this topic.

7792

1 THE COURT: I understand. We don't  
2 know who prepared this chart.  
3 MR. MOTLEY: I got a suspicion,  
4 don't I?  
5 MR. OHLEMEYER: Mr. Motley prepared  
6 it.  
7 MR. MOTLEY: Well, someone at my  
8 direction. I thought Mr. Young had prepared  
9 it.  
10 THE COURT: We'll talk about it  
11 later.  
12 Q Let me just ask you --  
13 THE COURT: That will be 101, the  
14 chart.  
15 Q You testified about this on direct, about  
16 advertising and research. Correct?  
17 A Yes.  
18 Q So you must have some familiarity with a  
19 comparison of what's spent on research and  
20 what's spent on advertising; correct?  
21 A In the U.S.A.  
22 Q In the U.S.A.? All right. You were with  
23 the company in 1995. Can you confirm that  
24 they spent 481 million on research and  
25 development and 3.724 billion on promotion

7793

1 and advertising?  
2 A I don't know if this is the entire  
3 corporation, if this is all the R & Ds  
4 within the corporation, tobacco, food. This  
5 does not -- just looking at the R & D  
6 budget, which is, really, the only thing I  
7 have any familiarity with, this number in  
8 1995 of \$481 million is a number that I have  
9 not seen before.  
10 Q Is it higher or lower?  
11 A This is higher than the R & D budget for  
12 U.S.A.  
13 Q Let me ask it this way. Maybe we can get to  
14 the bottom line quickly.  
15 Would you agree that it's probably a 1  
16 percent or less ratio of R & D to  
17 advertising and promotion by Philip Morris?  
18 A Yes.  
19 MR. MOTLEY: Dr. Carchman, thank  
20 you for your patience and it's nice to meet  
21 you, sir.  
22 THE WITNESS: You're welcome.  
23 THE COURT: Thank you, Mr. Motley.

24 Mr. Ohlemeyer, any redirect?  
25 MR. OHLEMEYER: Briefly, Your  
7794

1 Honor.  
2 REDIRECT EXAMINATION  
3 BY MR. OHLEMEYER:

4 Q Dr. Carchman, if somehow you spent 100 times  
5 more money on the kind of research you told  
6 us about yesterday each year, would you get  
7 more, better or faster results?

8 A I don't believe so.

9 Q Why not?

10 A As I tried to indicate yesterday when I  
11 briefly mentioned the Denissenko paper that  
12 was published in Science, looking in the  
13 test tube at a particular metabolite of  
14 benzo(a)pyrene, that was a technique that  
15 they had just developed, and it was nothing  
16 that pouring hundreds of millions of dollars  
17 into could have produced probably any  
18 quicker. It was the result of many, many  
19 years of many different people around the  
20 world looking at various problems here.

21 The National Cancer Institute, when I  
22 was -- when I was there, was given a  
23 tremendous increase in budget by then  
24 President Nixon, and there have been  
25 advances. But it's not a simple linear

7795

1 relationship between money and knowledge.  
2 And you have to think about how the money is  
3 spent, where it's spent, what kinds of  
4 technologies are involved.

5 Some of the things that we're using  
6 now, today, in 1998 did not -- did not exist  
7 just a few years -- a few years ago. And  
8 putting all the money in the world to it  
9 would not have really made it occur in any  
10 appreciable way sooner than it has occurred  
11 now. I mean, you're talking about answering  
12 points in which people don't even know the  
13 right questions to necessarily ask. If we  
14 even knew the right questions, then maybe  
15 putting money into it would help.

16 P53 didn't start out as a  
17 tumor-suppressor gene. It started out as a  
18 protein that a viral protein bound to, and  
19 they didn't have a clue. And it took ten  
20 years of a lot of different scientists to  
21 get to where we are now. But putting more  
22 money into it would not have helped. You  
23 needed time, time and the advancement of  
24 technologies.

25 Money is helpful, for sure, but just

7796

1 pouring money at something is not going to  
2 necessarily give you the information you  
3 need.

4 Q With respect to Dr. Cagle, do you have any  
5 understanding of what Dr. Cagle's  
6 relationship or involvement to this case  
7 was?

8 A Only insofar as the deposition that I was

9 given with his -- that he had signed.  
10 Q Are there places or, I guess places is the  
11 right word, or mutations that are found in  
12 tumors that are associated with other  
13 things, such as exposure to radon --  
14 A Yes.  
15 Q -- described in this database?  
16 A Yes.  
17 Q Do you know or did you look at Dr. Cagle's  
18 data of the material that was analyzed?  
19 A Yes, I did.  
20 Q Did they look at any, or look for any of  
21 those locations where there are supposed to  
22 be these mutations in cancers associated  
23 with radon?  
24 A As I indicated, I think it was yesterday, he  
25 only had this laboratory look at two exons

7797

1 in the -- within the exons that are normally  
2 looked at within the P53 gene. So I don't  
3 think he had them look for mutations outside  
4 of those two exons, and I think some of  
5 those mutations you're referring to are  
6 outside of the area he had this laboratory  
7 explore.

8 Q Now, does this database contain information  
9 about these G to T shifts in cancers  
10 associated with exposure to radon?

11 A I think they do.

12 Q Including lung cancers?

13 A Yes, sir.

14 Q And do these shifts occur before the cancer  
15 starts or after the cancer starts?

16 A Actually, that's probably one of the key  
17 questions in this whole area. When the  
18 Denissenko paper came out, at the same time  
19 there was another paper by Drs. Laskey and  
20 Silvergard that had access to this P53  
21 database, and they raise some interesting  
22 questions, which I briefly alluded to  
23 yesterday, that number one, these mutations,  
24 and again, I don't mean to be overly  
25 complex, there are really two strands on the

7798

1 DNA. The DNA is like a ladder with little  
2 rungs, just like a ladder that you walk up  
3 on. Generally speaking, only one of those  
4 strands is really active. The other one is,  
5 let's call it non-transcribed or quiet.

6 The mutations that you generally see  
7 are on the quiet -- the quiet side, okay.  
8 And it's a certain kind of -- certain kind  
9 of mutation.

10 Now, I've lost my -- in my explanation,  
11 I've sort of lost my thinking. Could you  
12 repeat the question again?

13 Q The question is, Doctor: Do these mutations  
14 occur before a cancer starts growing or are  
15 they the result of the cancer?

16 A All right. So you have this mutational  
17 change. The question is: Does that  
18 mutational change -- is it fixed? The body  
19 has repair systems that take care of a lot



20 of this, including in the P53 gene and in  
21 the cell that the P53 gene is in. These  
22 repair mechanisms are very important.  
23 In fact, several years ago on the front  
24 cover of Science, the journal that the  
25 Denissenko paper was published in, they had

7799

1 their first molecule of the year, and it was  
2 the DNA repair system. We are perpetually  
3 insulted both externally and internally by  
4 things that can produce mutations. Why  
5 aren't we all dead? Why don't we all have  
6 cancer? Part of the reason is you have  
7 these repair systems that fix these kinds of  
8 damage, like a mutation.

9 So if you have a mutation, the question  
10 is: Does it stay fixed, one? Do you have  
11 the repair system that's going on? You also  
12 have what Laskey and Silvergard and other  
13 people call the tissue effect, whether it's  
14 the lung, the liver, the ovary, the breast;  
15 each tissue is a unique environment and has  
16 a dramatic effect on what they call clonal  
17 selectivity.

18 So -- and I thought I tried to say this  
19 yesterday. If you take benzo(a)pyrene and  
20 expose lung, liver, or breast, you can  
21 really see different kinds of mutational  
22 patterns. Some of it is unique to the  
23 chemical in the DNA, some of it is special  
24 with regard to the repair, and some of it  
25 relates to the tissue in which it occurs.

7800

1 It's very complex.

2 And to basically reach in and pull out  
3 a mutation and say this mutation came from  
4 this chemical which came from that source is  
5 very, very difficult to do. And so I don't  
6 think, in general, it's possible at this  
7 point in time, though a lot of people are  
8 trying to get to that point, to put your  
9 finger on that button and say yes, that's  
10 what did it and that's where it came from.

11 Q Now, Mr. Motley asked you to assume that  
12 that analysis had been done correctly and  
13 done properly. How big an assumption is  
14 that, in your opinion?

15 A The report that I prepared on my own  
16 basically ignored the fact that there was  
17 something wrong with the assay. So that  
18 first analysis I did was just based on the  
19 assumption that everything was fine with the  
20 analyses that were performed. And I relied  
21 very heavily on the Laskey and Silvergard  
22 article in Environmental Health Perspectives  
23 to help formulate my position.

24 And then later when I asked my  
25 colleagues within the company that have the

7801

1 P53 database to do some searching for me, I  
2 became even more convinced as to what I  
3 would call the lack of significance of using  
4 157 as the be-all end-all, as Dr. Cagle

5           apparently did.  
6       Q     Doctor, let me turn to Plaintiffs' Exhibit  
7           35835, and let me ask a couple questions  
8           about it.  
9           Dr. Gaisch was writing a memo to a  
10          Dr. Murray, not a Dr. Murray, a Mr. Murray;  
11          right?  
12       A     I believe so.  
13       Q     And who was R.W. Murray at the time?  
14       A     It's a guess on my part, but that could be  
15          referring to Bill Murray.  
16       Q     Who was who in 1987 with respect --  
17       A     I don't have an idea what his position was  
18          then.  
19       Q     He was an executive?  
20       A     Yes.  
21       Q     Businessman, not a scientist.  
22       A     That's correct.  
23       Q     And Dr. Gaisch is involved with the science  
24          and technology group in one of the European  
25          subsidiaries?

7802

1       A     In Neuchatel FTR.  
2       Q     Neuchatel. And under the heading "ETS  
3          Monitoring," I want to read to you what he  
4          tells Dr. Murray his plans are in the ETS  
5          field. And ask you how they compare to what  
6          you do today. "1. To provide scientific  
7          advice to the corporate affairs department.  
8          "2. To establish contacts at the  
9          technical and scientific level, typically  
10         upon request by corporate affairs with  
11         particular persons, or with organizations  
12         for example, airlines.  
13         And "3. To organize, sponsor and  
14         support independent outside work in direct  
15         cooperation with R & D so as to obtain hard  
16         technical data."  
17         Is that the type of the thing that you  
18         do even today?  
19       A     That's part of what we do, yes.  
20       Q     And Exhibit 14752 refers to a visit by a  
21          Professor Froggatt, F-R-O-G-G-A-T-T, to  
22          INBIFO. Who is Professor Froggatt?  
23       A     Professor Froggatt, actually the committee  
24          ended up being called the Froggatt  
25          Commission was a prominent scientist in the

7803

1          United Kingdom who was involved with the  
2          development of establishing approved  
3          ingredients for use on tobacco in the  
4          manufacture of cigarettes.  
5       Q     And he was employed by whom?  
6       A     By the department -- I think the Department  
7          of Health in the U.K., either directly or  
8          indirectly.  
9       Q     Now, I heard the word critically, or I heard  
10         the phrase "critically review" a couple of  
11         times. What does it mean to critically  
12         review something, critically review  
13         scientific literature?  
14       A     You sit down, you read the abstract, you  
15         pull out the tables and the figures, you

16 look at every single reference that the  
17 individuals in the report have cited. And  
18 you, generally speaking, get ahold of every  
19 single one of those references and make sure  
20 that it's a clear representation of what the  
21 papers that are cited or reviews that are  
22 cited are represented. You look at the  
23 question. They're usually -- in a good  
24 scientific study, they have to be asking a  
25 question. And then you ask yourself is the

7804

1 design, the experimental design, sufficient  
2 to address the question.

3 Then you ask yourself are the  
4 methodologies that they're using to assess  
5 this question appropriate, rigorous,  
6 systematic? And then finally you ask  
7 yourself, are the statistical tests that  
8 they may be applying appropriate for the  
9 design of the experiment.

10 And then finally you look at the  
11 conclusions that the authors draw from the  
12 data. Are there conclusions within the box  
13 that is consistent with the data? Have they  
14 stepped outside -- there is nothing wrong  
15 with stepping outside as long as you say to  
16 people I'm going to extrapolate beyond what  
17 my data suggests. There is nothing wrong  
18 with that. So you're looking for internal  
19 consistency, you're looking for the validity  
20 of the methodology, and you're looking for  
21 the fact that they've asked an important  
22 question and that they've tried to answer  
23 part or all of it.

24 Q Now, you've been involved in academic  
25 situations at the Medical College of

7805

1 Virginia, you've worked for Philip Morris.  
2 Are cigarette companies the only group of  
3 people who critically review scientific  
4 literature?

5 A No. It's more the norm than the exception.

6 Q And in your experience, do other industries  
7 or other people involved with other issues  
8 and other products critically review  
9 scientific and medical literature?

10 A That has been my experience.

11 Q And, in fact, with respect to things like  
12 the Auerbach study, which we've heard a lot  
13 about in the case, are there published  
14 critical reviews of that study that have  
15 appeared in the literature from time to time  
16 not connected to tobacco companies?

17 A Well, I can't tell you if they were  
18 connected or not, but there have been  
19 critical reviews of such kinds of reports.

20 Q Let me ask you to assume that -- we've heard  
21 that the National Academy of Sciences, IARC  
22 or the Surgeon General has published those  
23 types of reviews. Are any of those  
24 organizations connected to the tobacco  
25 industry?

7806

1 Connected is probably not the right  
2 word.  
3 A Not that I'm aware of, but even  
4 organizations like the National Academy or  
5 the National Research Council or even the  
6 National Cancer Institute might employ  
7 industry scientists, not necessarily from  
8 the tobacco industry, but from some other,  
9 whether it's the chemical industry or the  
10 pharmaceutical industry, in helping them  
11 with preparing documents or reviews.  
12 Q Doctor, this is a yes or no question. Are  
13 there researchers or scientists, besides  
14 those employed by or sponsored by tobacco  
15 companies, who have expressed doubts about  
16 the relationship between environmental  
17 tobacco smoke and lung cancer?  
18 A Yes, sir.  
19 Q And let me finally ask you about cigarette  
20 smoking. After all your education and all  
21 your experience and the time you spent  
22 working at Philip Morris, how is it that you  
23 can tell Mr. Motley you don't know whether  
24 cigarette smoking causes injuries to health  
25 or is associated with risk to health?

7807

1 A The information that's necessary to  
2 demonstrate causation is just -- is just not  
3 there. There are important pieces of  
4 information that are suggestive, and that's  
5 where risk factor comes in. But to actually  
6 demonstrate how smoking a cigarette could  
7 produce a lung cancer is beyond the realm of  
8 our current scientific understanding.  
9 Q So it's certainly possible that cigarette  
10 smoking causes lung cancer?  
11 A Yes.  
12 Q And there's evidence to suggest that it  
13 might?  
14 A Yes.  
15 Q That being the epidemiology?  
16 A Yes.  
17 Q And how has that information developed since  
18 1954?  
19 A It's actually developed to a very  
20 significant and large, large extent. For  
21 example, I've been asked questions regarding  
22 benzo(a)pyrene and tobacco-specific  
23 nitrosamines. I'll point out, as I think I  
24 indicated yesterday, there are nine known  
25 human carcinogens in tobacco smoke. Neither

7808

1 the tobacco-specific nitrosamines nor  
2 benzo(a)pyrene are listed as known human  
3 carcinogens by the International Agency for  
4 Research on Cancer. That's number one.  
5 Number two, we have employed in Philip  
6 Morris probably one of the world's leading  
7 experts on the molecular biology and  
8 biochemistry of nitrosamines, per se. He  
9 just published a recent review in the  
10 European Journal of Cancer on this.  
11 And we are supporting research efforts

12 to do comparisons of the metabolism of these  
13 tobacco-specific nitrosamines in  
14 human-derived tissue and in animal tissue.

15 And what we're seeing is, as you would  
16 predict, in the animal tissues, in which you  
17 can get lung cancer, say, by giving NNK, you  
18 get the production of chemicals which would  
19 be consistent with the kind of damage you  
20 would expect to see if you're going to get  
21 cancer. Whereas, in tissues derived from  
22 human lung and human liver, we don't see  
23 that.

24 And this information has been presented  
25 at the American Association of Cancer

7809

1 Research meeting held last year in Puerto  
2 Rico; another abstract was presented at the  
3 Society of Toxicology meeting last week in  
4 Seattle; and another abstract will be  
5 presented at the upcoming international  
6 meeting in New Orleans from the American  
7 Association for Cancer Research. And we  
8 hope to submit a manuscript for peer review  
9 consideration this year on this particular  
10 item.

11 So here you have a compound that's a  
12 well-established animal carcinogen. You're  
13 not going to get any argument from me about  
14 that. But its relevance to humans, I think,  
15 remains illusive. The data we have so far  
16 suggests, to me, if you're a fish or a rat,  
17 you don't want to be exposed to this. But  
18 if you're a human being, it doesn't seem to  
19 pose the kind of threat that you would  
20 project from simply looking at the animal  
21 data.

22 MR. OHLEMEYER: Thank you, Dr.  
23 Carchman. That's all I have.

24 Thank you, Your Honor.

25 THE COURT: Thank you, Counselor.

7810

1 Mr. Motley?

2 RE-CROSS-EXAMINATION

3 BY MR. MOTLEY:

4 Q Doctor, the cigarette industry has been  
5 claiming that they don't know whether lung  
6 cancer is caused by cigarette smoking since  
7 1954. You understand that?

8 A I understand what you're saying.

9 Q Yeah. And you spent -- cigarettes companies  
10 have spent tens of millions of dollars and  
11 they claim they still don't know whether  
12 cigarette smoking causes lung cancer; right?

13 A That's correct.

14 Q And meanwhile your company is producing two  
15 billion cigarettes a day; right? Right?

16 A No.

17 Q How many?

18 A I said less than a billion a day.

19 Q A billion a day.

20 A Okay.

21 Q Now, did Philip Morris, to your knowledge,  
22 conduct any biomolecular -- isn't that what

23 we've been talking about, this P53 --  
24 molecular biology? Biomolecular, is that a  
25 proper --

7811

1 A I understand what you're saying.  
2 Q Well, did Philip Morris commission anybody  
3 to study Ms. Wiley's tissue to answer some  
4 of these questions you've raised?  
5 A Not that I'm aware of.  
6 Q They didn't. You know that they have listed  
7 and brought in here and will bring in today  
8 in a few minutes pathologists to testify in  
9 this case, don't you?  
10 A No, I don't.  
11 Q Doctor, I want to talk to you about radon  
12 for a minute.  
13 I want to ask you if you would agree --  
14 first of all, do you agree with the NCI that  
15 radon and cigarette smoke act  
16 synergistically?  
17 A Are you referring to the recent so-called  
18 Sammett report?  
19 Q That's a fair question. Let me see.  
20 Actually, I had it right here.  
21 It's not Sammett. It's Hollstein. Are  
22 you familiar with this? It was testified  
23 about by Dr. Roggli.  
24 A I'm very familiar with this paper.  
25 Q Well, do you agree or disagree with the

7812

1 finding that, on page 4870, that radon  
2 exposure and cigarette smoking increase risk  
3 synergistically? First of all, tell the  
4 jury what that means. Let me do it this  
5 way: I always do it like this. 3 plus 3 is  
6 9, okay? In other words, the two agents are  
7 more than additive; correct? That's what  
8 synergism means generally.  
9 A To some people.  
10 Q To some people. Okay. Well, do you agree  
11 or disagree with this article that radon  
12 exposure and cigarette smoking increase the  
13 risk of lung cancer synergistically?  
14 A This is not a simple yes and no answer. If  
15 what you're saying is that people who are  
16 exposed to radon who also smoke cigarettes  
17 have a higher risk for lung cancer, the  
18 answer is yes.  
19 Q Okay. Now, I better get done quick. I'm  
20 about to run out of paper so let me write  
21 just a little smaller than what I've been  
22 writing.  
23 The problem with radon is really it's a  
24 decay product. Some people call that radon  
25 daughters.

7813

1 A Yes.  
2 Q These radon daughters contain the  
3 radioactivity and attach sometimes to  
4 airborne particles. Only they take a ride,  
5 and attach themselves and take a ride on  
6 other particles and get into the lungs and  
7 that's what the problem is. Do you agree

8 with that?  
9 A That's what some people believe is going on,  
10 yes.  
11 Q And those particles, those people who  
12 believe this, also believe that radon  
13 attaches itself to environmental tobacco  
14 smoke, don't they?  
15 A Since environmental tobacco smoke has, as a  
16 part of its character, particles, for them  
17 that's not much of a leap of faith.  
18 Q Well, do you know, sir -- are you familiar  
19 with a Mr. Robert Gertenbach?  
20 A The name doesn't ring a bell.  
21 Q Well, are you -- this is not a Philip Morris  
22 document. It's an RJ Reynolds document. I  
23 want you to just look at this to yourself.  
24 Have you read that to yourself?  
25 A Just that one paragraph?

7814

1 Q Yes.  
2 A Yes.  
3 Q And what I have just asked you about is  
4 discussed in this Reynolds document; right?  
5 A Apparently so, yes.  
6 Q All right. Doctor, you mentioned  
7 Denissenko's article. Do you recall that?  
8 A Yes.  
9 Q And without getting into great detail,  
10 you're familiar with the article. You don't  
11 agree with him, I take it?  
12 A Oh, no, no. There is some parts that I  
13 think are very clear in the test tube when  
14 he puts in one million times the amount of  
15 that metabolite, he sees those mutational  
16 changes. I think that's probably real.  
17 Q And he says, codon 157 is a mutational hot  
18 spot specific for lung cancer and does not  
19 occur as a hot spot in any other cancer. Do  
20 you remember him saying that?  
21 A Oh, yes.  
22 Q Do you agree with that? You don't agree  
23 with that?  
24 A No.  
25 Q And he also says benzo(a)pyrene, which

7815

1 occurs in amounts of 20 to 40 nanograms per  
2 cigarette, is by far the best study of these  
3 compounds and is one of the most potent  
4 mutagens and carcinogens known; do you agree  
5 with that?  
6 A Oh, no.  
7 Q You don't agree with that, okay.  
8 MR. MOTLEY: I think I am done, but  
9 can I have one second, Your Honor, to look  
10 at this?  
11 THE COURT: Sure.  
12 Q One other thing. I cheated. I got another  
13 piece of paper here.  
14 Does this name ring a bell, Thierry  
15 Soussi?  
16 A The names ring a bell.  
17 Q Do you know that Dr. Soussi has a P53  
18 database at the Curie Institute? Madam

19 Curie invented what?  
20 A Well, it's one of the compounds -- uranium.  
21 She was very important, her and her husband,  
22 Pierre and Marie.  
23 Q Right. And you know he works at the Curie  
24 Institute?  
25 A Yes.

7816

1 Q And that he has a P53 database with over  
2 7,800 entries. Are you familiar with that?  
3 A There are several P53 databases out there.  
4 Q His is one of them?  
5 A Yes.  
6 Q Would you agree or disagree with Dr. Soussi  
7 that his studies clearly show that the P53  
8 gene --

9 MR. OHLEMEYER: Your Honor, I  
10 object to reading to the jury something --

11 MR. MOTLEY: I'll withdraw it,  
12 Judge. Let me check with my colleagues and  
13 see if I'm done.

14 THE COURT: All right.

15 Q Without commenting on what this is, Doctor,  
16 I want to know if you know about it.

17 MR. OHLEMEYER: Might I see it?

18 MR. MOTLEY: If he's not aware of  
19 it, I'm not going to ask him about it.

20 Q Are you aware of a letter from your boss,  
21 Mr. --

22 MR. OHLEMEYER: I don't -- I object  
23 to describing something that the witness  
24 hasn't even said he's seen.

25 THE COURT: Let him see the

7817

1 document first.

2 A I've not seen this letter.

3 Q You haven't seen it?

4 MR. MOTLEY: Your Honor, I would  
5 like to mark it for ID and not ask him any  
6 questions about it.

7 THE COURT: We will. 102.

8 MR. MOTLEY: Have a good trip back,  
9 sir.

10 You know South Carolina plays Richmond.

11 A South Carolina State?

12 Q No, no.

13 A South Carolina.

14 THE COURT: Doctor, thank you for  
15 coming to Indiana. You may step down.

16 We'll take the noon break. We will  
17 break until 1:00 p.m.

18 (Standard admonition)

19 MR. CASSELL: All rise.

20 (A lunch recess was taken.)

21 MR. CASSELL: All rise.

22 THE COURT: Be seated. Call your  
23 next, Mr. Ohlemeyer.

24 MR. OHLEMEYER: Dr. David Porter.

25 THE COURT: Would you raise your

7818

1 right hand.

2 DEFENDANTS' WITNESS, DAVID PORTER, SWORN

3 THE COURT: Have a seat right



4           there, sir. Would you tell the jury your  
5           name.  
6                     THE WITNESS: David Dixon Porter.  
7                     THE COURT: Would you spell your  
8           last name.  
9                     THE WITNESS: P-O-R-T-E-R.  
10                    THE COURT: Thank you.  
11           Mr. Ohlemeyer.  
12                    MR. OHLEMEYER: Thank you, Judge.

13 DIRECT EXAMINATION

14 BY MR. OHLEMEYER:

15       Q   Dr. Porter, you're with the Department of  
16           Pathology and Laboratory of Medicine at  
17           UCLA?  
18       A   That is correct.  
19       Q   That's the University of California at Los  
20           Angeles?  
21       A   That is correct.  
22       Q   And you are a pathologist?  
23       A   I'm a board certified anatomic pathologist.  
24       Q   And a medical doctor.  
25       A   I am an M.D.

7819

1       Q   Would you describe for us your education.  
2       A   Yes. I started at Carnegie-Mellon  
3           University. I transferred to the University  
4           of Pittsburgh where I got a degree in  
5           chemistry. I received my M.D. from the  
6           University of Pittsburgh in 1961. I was an  
7           intern in pathology at Duke University  
8           Medical Center in North Carolina. And I had  
9           a combined anatomic pathology and research  
10          training at Scripps Clinic and Research  
11          Foundation and Scripps Hospital in La Jolla,  
12          California, and a second batch of training  
13          at the West Star Institute and University of  
14          Pennsylvania in Philadelphia.  
15       Q   Tell us what an anatomic pathologist is.  
16       A   An anatomic pathologist studies gross  
17           microscopic and submicroscopic correlates of  
18           disease in order to diagnose what is wrong  
19           with people.  
20       Q   And how is that done, generally.  
21       A   You may have any of a number of types of  
22           material. For example, it is usually  
23           required that anything removed from a living  
24           patient be examined by an anatomic  
25           pathologist. Any cytology, such as a

7820

1           Papanicolaou smear, will be reviewed by an  
2           anatomic pathologist. Or if you die and  
3           there's an autopsy done, either by the  
4           hospital or as a coroner, you will examine  
5           the whole body.  
6       Q   So you had undergraduate education in  
7           chemistry.  
8       A   Correct.  
9       Q   And then you go to medical school for four  
10          years and get an M.D. degree.  
11       A   Correct.  
12       Q   And then you went on to what are called  
13          internships and fellowships; right?  
14       A   Correct.

15 Q What's the purpose of an internship and  
16 fellowship?  
17 A That is to -- this period of post-doctoral  
18 education is aimed at making you competent  
19 in the diagnosis of disease and in research  
20 to discover the cause of disease.  
21 Q How long did that process go on?  
22 A My post-doctoral training was a total of six  
23 years.  
24 Q And what, in general terms, what are you  
25 studying during those six years?

7821

1 A I was studying the surgical pathology,  
2 cytology, autopsy pathology, neuropathology  
3 and experimental work with viruses.  
4 Q Would you describe for us your employment  
5 history from the time you completed your  
6 post-doctorate work until the present?  
7 A Yes. I became an assistant professor of  
8 virology and epidemiology at Baylor College  
9 of Medicine in Houston, 1967 to 1969. At  
10 which point I went to the Department of  
11 Pathology and Laboratory of Medicine at UCLA  
12 as an assistant professor. I was promoted  
13 to associate professor with tenure in 1970,  
14 and to full professor in 1975.

15 I have been there since then.

16 Q And what is it that you taught at the  
17 University of California?

18 A I have taught medical students and dental  
19 students in the area of pathology. We have  
20 three very large courses, two for the  
21 medical students, one for the dental  
22 students. Both the medical and dental  
23 students get a general course in pathology,  
24 basic disease mechanisms.

25 For example, cell injury and cell

7822

1 death, inflammation, aminopathology and  
2 basic cancer biology. After that, the  
3 dental students go on to a specialty course  
4 in the oral pathology with D.D.S.  
5 pathologists, which I do not teach in. The  
6 medical students go on to a half-a-year  
7 course in specialty organ pathology. For  
8 example, I have taught on a nearly  
9 continuous basis cardiovascular and  
10 pulmonary pathology in two-week concentrated  
11 courses to the medical students for the last  
12 29 years.

13 Q Explain to us what pulmonary pathology is,  
14 what it involves.

15 A Pulmonary pathology is the disease of the  
16 lungs and airways.

17 Q Including cancer?

18 A Including cancer, but also including  
19 inflammation such as pneumonia, including  
20 genetic diseases such as cystic fibrosis.

21 Q Have you taught courses that deal  
22 specifically with cancer?

23 A No, I have not. I've taught graduate school  
24 courses in cancer virology. But that is not  
25 exactly the pathology type of thing. These

1 were Ph.D. students.

2 Q And with respect to your other teaching  
3 duties, does it involve teaching just  
4 medical students or are they post-doctorate  
5 students or are they people doing  
6 internships and fellowships like you did?

7 A Okay. In addition to the student teaching  
8 of the medical and dental students that I  
9 described, that I have been heavily involved  
10 in teaching interns and residents in  
11 pathology the entire time I've been at UCLA.  
12 These people, at one time, for example, when  
13 I went through it, required four years of  
14 post-doctoral training; now it requires five  
15 years of post-doctoral training. Many of  
16 them split their time between anatomic and  
17 clinical pathology, the clinical pathology  
18 being clinical laboratory medicine.

19 I only teach the anatomic pathology  
20 part. I have specialized particularly in  
21 autopsy pathology, and that's the subject I  
22 teach the residents.

23 Q So you actually teach doctors who have  
24 completed medical school how to conduct  
25 autopsies?

1 A That is correct.

2 Q And, Doctor, have you taught or written --  
3 have you written in connection with your  
4 teaching?

5 A No, I have not written specifically in  
6 connection with the teaching. Most of my  
7 writing has to do with my research program  
8 in viral diseases.

9 Q I guess a better question was, in addition  
10 to your teaching duties, have you published  
11 research in various areas?

12 A Yes, I have. I've published 88 articles and  
13 chapters, most of them in peer-reviewed  
14 journals. I have been supported by the  
15 National Institutes of Health, amongst other  
16 places.

17 Q Tell us, Doctor, about the differences  
18 between, I guess what I consider surgical or  
19 clinical pathology and what you teach people  
20 about autopsies. Is there a difference in  
21 the practice of pathology as it relates to  
22 those two areas?

23 A Okay. You had clinical pathology in there,  
24 too. Clinical pathology is a different sort  
25 of study. That is the clinical laboratory

1 medicine.

2 Q Then that's a bad question.

3 A Let's be rid of that.

4 Q Surgical pathology.

5 A Okay. As a board certified anatomic  
6 pathologist, I can do surgical pathology,  
7 autopsy pathology, cytology, and  
8 neuropathology. In a big academic medical  
9 center, we have a lot of people and tend to  
10 get so specialized, that I have concentrated

11 almost exclusively on autopsy pathology my  
12 entire 29 years there. Although, I do do a  
13 small number of surgical pathology cases,  
14 just to keep from getting rusty.

15 Q And tell us a little bit about how it's  
16 different. How you compare and contrast  
17 those two types of pathology.

18 A The surgical pathology, you have a specimen  
19 from a live patient, sometimes a little tiny  
20 biopsy the size of a pinhead or two pinheads  
21 together. Sometimes you will have a whole  
22 organ, such as a diseased spleen or kidney  
23 or lung. Sometimes you have vital organs,  
24 such as a heart, because we do a lot of  
25 heart transplants in our institution.

7826

1 By contrast, the autopsy, if we have  
2 unlimited permission, we will do a complete  
3 and very thorough examination of all the  
4 internal organs including the brain, eyes,  
5 oft times the internal ears. If it is a  
6 coroner's case, and I'm a deputy coroner for  
7 Los Angeles County, we will investigate the  
8 cause of death.

9 Q In connection with the treatment of a  
10 patient, are you familiar with generally the  
11 types of diagnostic techniques and equipment  
12 that are available to clinicians to help  
13 diagnose and treat patients?

14 A Yes, I am.

15 Q Am I correct that includes things like  
16 X-rays and CT scans and magnetic resonance  
17 imaging, blood tests, biopsies, things like  
18 that?

19 A Yes, I have to be familiar with all these.

20 Q Despite the fact that all of that  
21 information, or all of that equipment and  
22 all of those techniques are available to  
23 doctors, in your experience, do autopsies  
24 reveal disease or disease processes that are  
25 not detected during the patient's life?

7827

1 A Absolutely.

2 Q Why is that?

3 A During the 1930s, a study at Harvard Medical  
4 School and the Massachusetts General  
5 Hospital showed that a complete autopsy  
6 would provide additional relevant  
7 information or completely new information in  
8 approximately 40 percent of the cases that  
9 were autopsied.

10 Despite all the new imaging, the  
11 magnetic resonance imaging and other things  
12 and many other advancements in technique, a  
13 study also at Harvard Massachusetts General  
14 Hospital in the late 1980s showed that the  
15 40 percent yield of new information from  
16 autopsies was unchanged from that of the  
17 1930s.

18 Q Does that information include information  
19 about cancer?

20 A Yes, it does.

21 Q Why or what -- is there anything about

22 cancer that makes it more or less likely to  
23 be revealed on autopsy as opposed to in  
24 life?

25 A Cancer is not a single disease. Cancer is  
7828

1 several hundred diseases that all express  
2 one common feature, and that's uncontrolled  
3 cell growth, which is essentially the  
4 definition of cancer.

5 Cancers can be difficult to diagnose,  
6 sometimes essentially impossible to  
7 diagnose. Sometimes they can kill a patient  
8 before it's revealed clinically. We find  
9 cases of hidden or occult malignancies in  
10 some of the patients on whom we do  
11 autopsies.

12 Q Does that include people who didn't have  
13 symptoms of the disease at the time they  
14 were alive?

15 A That includes people who either didn't have  
16 symptoms that pointed to a specific place or  
17 the symptoms were misleading.

18 Q And how many autopsies have you been  
19 involved in over your career, Doctor?

20 A I have personally done a little over 3,000  
21 autopsies. But as a medical student, I was  
22 working in the department of pathology at  
23 the University of Pittsburgh, and I got to  
24 review, with the vice-chairman of that  
25 department, 17,000 autopsies that were done  
7829

1 at the 13 university-related hospitals.

2 Subsequently, I have reviewed every  
3 autopsy ever done at UCLA, including before  
4 I went, which is 14,000 more.

5 Q What's the purpose of reviewing -- let me  
6 ask you this: What does it mean to review  
7 an autopsy?

8 A Okay. I may look at the gross organs from  
9 the case, I may look only at the microscopic  
10 slides. Once in a while I will only look at  
11 the written material for two reasons. One,  
12 is to further education myself, and the  
13 second is that I have been involved in  
14 quality control, and I'm looking for  
15 slippage on the part of other people.

16 Q And how do you go about reviewing an  
17 autopsy?

18 A If I am reviewing the gross organs, I will  
19 put my gloves on and simply examine all the  
20 organs in the case. Typically, we do this  
21 as a group exercise and have gross  
22 conferences twice a week and the residents,  
23 in fact, assigned to the autopsy service,  
24 will review all non-neonatal deaths. Put  
25 the gloves on and examine all the organs,  
7830

1 give an opinion. We will also look at the  
2 microscopic slides at that point if they're  
3 ready.

4 Q And what role, if any, does the medical  
5 literature or the reports of other  
6 pathologists play in this process?

7 A Despite the fact that I have quite a bit of  
8 autopsy experience, I am seeing a very small  
9 number of cases compared to the number of  
10 cases that are out there on the basis of the  
11 state or nationwide. So I am very dependent  
12 on the literature to get a more total  
13 picture of what is out there.

14 Q And is that something that you and other  
15 pathologists typically use to -- or rely  
16 upon to do your job?

17 A Absolutely. I insist that the residents use  
18 the literature. I do. Including books, but  
19 particularly journal articles.

20 All of us are equipped through the  
21 University of California mainframe systems  
22 and connections to all nine campuses, that I  
23 have a high speed search capability of  
24 looking in the literature. If I wish, it  
25 will do particular types of searches for me

7831

1 once a week.

2 Q Give me an example of what use you would  
3 make of a journal article in trying to  
4 diagnose a particular disease, especially  
5 cancer.

6 A If I thought that the tumor was either in  
7 somewhat unusual presentation of a common  
8 tumor or an uncommon tumor, I would simply  
9 enter the words describing this tumor in the  
10 computer system. The computer then would  
11 give me back articles where either the  
12 abstract title or text used this combination  
13 of terminology. It's fairly automatic. If  
14 I would say pulmonary, it would also look  
15 for the word lung.

16 And then it would give me a number of  
17 journal articles that I could run the  
18 abstract up, in some cases the entire text,  
19 sitting right in my office. This makes the  
20 searches very rapid.

21 Q And what is it you're looking for; what kind  
22 of information?

23 A I am looking very often for either a recent  
24 review article by somebody who has some  
25 expertise in the subject, new research

7832

1 findings that give me a different opinion of  
2 what a problem is about; a case study, and  
3 I'm particularly looking for one with a  
4 number of cases of a condition to give me  
5 guidance on the range of possibilities for  
6 diagnosis, advice to the clinicians and  
7 therapy, that my own personal experience  
8 couldn't help with.

9 Q And, Doctor, what percentage of the  
10 autopsies you've either been involved in or  
11 have reviewed involve cancer of some sort?

12 A The number of people in the United States  
13 who die of cancer is somewhere about 22  
14 percent of deaths. I would estimate that  
15 that is a reasonable representation of the  
16 cases I have personally viewed.

17 Q When you, as a pathologist, conduct an

18 autopsy, is it common, in a patient who has  
19 cancer or is suspected of having cancer, is  
20 it common to find cancer in more than one  
21 part of the body?

22 A Yes. This process is called metastasis,  
23 that the tumor either moves through the  
24 bloodstream, through the lymphatics, or by  
25 direct extension to another site. One of

7833

1 the definitions of cancer is its tendency to  
2 invade. This is a specialized subset of  
3 invasion of cancer.

4 Q How do you determine where the cancer  
5 started?

6 A Sometimes this can be difficult. The  
7 general principle would be to look at the  
8 entire set of organs before you start making  
9 up your mind as to where the tumor is.  
10 Certain types of malignant tumors have very  
11 certain and fairly stereotype appearances.  
12 A primary carcinoma of the colon encircles  
13 the colon, dives into the wall, has a lesion  
14 in the lumen. They are fairly easy to  
15 diagnose.

16 A primary squamous or epidermoid  
17 carcinogen of the lung almost always starts  
18 in a relative large bronchus. One can see  
19 it starting to fill the bronchus; you can  
20 see the transition zone. If you can't see  
21 it grossly, you can see it microscopically  
22 from normal to atypical to frank cancer.

23 This is some guidance in determining  
24 where the primary tumor is. Sometimes  
25 it's -- sometimes it is rather difficult to

7834

1 tell where the primary tumor is.

2 As I mentioned, cancer is several  
3 hundred diseases, and cancers of certain  
4 types and certain primary sites tend to go  
5 to certain places. This is of some degree  
6 of help.

7 Q And when you say "tend," "tend to," is that  
8 information you derive from both your  
9 experience and from the literature as you've  
10 described it to us?

11 A Absolutely.

12 Q Doctor, when you find cancer in different  
13 parts of the body, does it often look the  
14 same under the microscope?

15 A Yes. A tumor that is an adenocarcinoma, or  
16 which is the terminology for a  
17 gland-producing tumor, can look rather  
18 similar whether it came from the colon, from  
19 the pancreas, or from the lung.

20 Q Are there other parts of the body where  
21 adenocarcinomas can begin?

22 A Absolutely. There are adenocarcinomas in  
23 the body of the uterus, they are present in  
24 the ovaries, anywhere through the intestine,  
25 from the stomach at least through the colon.

7835

1 Salivary glands, small glands in the mouth.  
2 And this is not necessarily a total list.

3 Gallbladder.  
4 Q Doctor, in your experience as a pathologist,  
5 do you have any familiarity with the organ  
6 known as the pancreas?  
7 A Yes, I do.  
8 Q Tell us what the pancreas is, where it's  
9 located, what its function is.  
10 A The pancreas is very deep in the body, just  
11 about the bottom of your rib cage, very  
12 deeply buried, almost right in the center of  
13 the body. It's about 10 inches long. The  
14 head is approximately 2 1/2 inches in  
15 diameter. The body is about an inch in  
16 diameter, and it decreases to about  
17 three-quarters of an inch in diameter at the  
18 tail.  
19 This organ serves several purposes.  
20 The first one is that it makes digestive  
21 enzymes, such as trypsin and chymotrypsin  
22 that help you digest your protein. It makes  
23 fat splitting enzymes and carbohydrate  
24 splitting enzymes as well and puts those in  
25 to the small bowel to aid your digestion.

7836

1 You need this.  
2 There are also the so-called islets of  
3 Langerhans in there that are collections of  
4 cells that make insulin; glucagon and  
5 several more hormones. Without the insulin,  
6 you would be diabetic.  
7 Q Doctor, in your experience -- I'm sorry.  
8 Did you complete your answer?  
9 A Yes.  
10 Q I didn't mean to interrupt. In your  
11 experience as a pathologist conducting  
12 autopsies, have you observed cases of  
13 pancreatic cancer?  
14 A Yes, I have. I have dealt with perhaps 200  
15 or a few more cases of pancreatic cancer.  
16 Q And by dealt with, do you mean you've looked  
17 under a microscope, or looked at --  
18 A Looked at the gross, looked under the  
19 microscope and made the diagnosis.  
20 Q And does the behavior of a cancer that  
21 begins in the pancreas depend upon where in  
22 the pancreas it starts?  
23 A Yes, it does.  
24 Q How so?  
25 A The common bile duct from the liver to the

7837

1 intestine runs right through the head of the  
2 pancreas. A cancer in the head of the  
3 pancreas tends to rapidly compress that bile  
4 duct, the patient becomes yellow or  
5 jaundiced, and there are relatively early  
6 symptoms.  
7 Tumors in the body and the tail of the  
8 pancreas give notice much later because they  
9 are not surrounding a vital organ and don't  
10 give you a very early sign.  
11 About 20 or 22 percent of the tumors in  
12 the pancreas are diffuse. They may occupy  
13 either a part or all of the pancreas, not



14 changing its shape very much, but the tumor  
15 is widespread within the pancreas.  
16 Q Do cancers of the pancreas spread to other  
17 parts of the body?  
18 A Yes, they do. The ones in the head of the  
19 pancreas tend to spread into the liver. The  
20 ones in the body and the tail of the  
21 pancreas tend to spread to lymph nodes, tend  
22 to spread to lung, and to the abdominal  
23 cavity.  
24 Q In your experience, Doctor, have you  
25 observed pathological cases of

7838

1 adenocarcinoma of the lung?  
2 A Yes, I have.  
3 Q And have you observed cancer that begins in  
4 the lung and also cancer that spreads to the  
5 lung?  
6 A Yes. I have observed perhaps 300 cases of  
7 primary adenocarcinoma of the lung. I've  
8 observed many more examples than that of  
9 adenocarcinoma metastatic to the lung. The  
10 commonest tumor in the lung, malignant, is  
11 metastatic because that receives the entire  
12 body's blood supply. Much of the lymphatic  
13 drainage goes through the lung, and tumors  
14 for most sites in the body often end up in  
15 the lungs as metastasis.  
16 Q Is another way of saying that most of the  
17 time when cancer is found in the lung, it's  
18 cancer that started somewhere else and  
19 spread to the lung?  
20 A I would prefer to say it: The majority of  
21 cancer observed in the lung is metastatic, a  
22 minority primary in the lung.  
23 Q Doctor, in the cases of adenocarcinoma that  
24 begins in the lung, the autopsy cases that  
25 you've seen, what percentage of them have

7839

1 you also observed a spread to the pancreas  
2 from a tumor that begins in the lung?  
3 A I have never seen a lung primary  
4 adenocarcinoma spread to the pancreas. I  
5 have seen it go into the lymph nodes near  
6 the pancreas.  
7 Q Is it possible?  
8 A Certainly it's possible.  
9 Q Just nothing you've seen.  
10 A Just nothing I've seen.  
11 Q Doctor, at our request, have you reviewed  
12 some medical records and pathology material  
13 relating to Mrs. Wiley, Mildred Wiley?  
14 A Yes. I reviewed what I think were the  
15 complete medical records on Mrs. Wiley. I  
16 reviewed the cytology, the surgical  
17 pathology and autopsy reports and slides on  
18 Mrs. Wiley.  
19 Q Tell us about the surgical pathology slides  
20 that you reviewed.  
21 A Okay. The surgical pathology slides were a  
22 skin biopsy from the skin of the chest, very  
23 clearly an adenocarcinoma. I would rate it  
24 as poorly to moderately differentiated.

25           There wasn't anything that told me where it  
7840

1            came from.

2      0      What next?

3           A    I would like to touch on what is essentially  
4                cytology from the bronchoscopy by Dr. Patel.  
5                There was both brushings and washings.  I  
6                found no malignant cells there.

7 Q Doctor, let me interrupt you there. Am I  
8 correct -- I don't want to belabor this, but  
9 you're familiar with the fact that Dr. Patel  
10 conducted a bronchoscopy, examination by  
11 bronchoscopy in May of 1991. Is that right?

12           A     It could have been earlier.

13           0    Let me hand you a copy of exhibit --

14 MR. OHLEMEYER: Your Honor, that's  
15 already in evidence, it's the Defendants'  
16 M1686A.

17 Q Dr. Porter, is that the procedure that  
18 created the washings and the brushings?

19 A Yes.

20 Q And tell us briefly, we've heard a little  
21 bit about this, but tell us, just to orient  
22 ourselves, what a brushing and washing is  
23 and how they're obtained from the patient.

24 A A bronchoscope is a flexible tube with  
25 fiberoptics on it to make the light go down  
7841

1       and follow the tube. You can use a little  
2       brush, you can put a little bit of fluid in  
3       and draw it back; that would be the washing.  
4       You can also put a very small biopsy forceps  
5       down and grab a piece of tissue.

6 Q What role does a pathologist play in  
7 analyzing that material?

8       A    A pathologist will prepare slides from all  
9           these materials and examine them for the  
10          presence or absence of carcinoma or any  
11          other diagnostic changes; for example, those  
12          of pneumonia.

13 Q And in connection with the bronchoscopy  
14 procedure that was performed by Dr. Patel,  
15 have you looked at both the reports and the  
16 medical records from the pathologists and  
17 the actual slides?

18           A    Both.

19 Q And what, Doctor, did you observe through  
20 your observation of those pathology slides?

21       A     I observed inflammatory cells, red blood  
22             cells, ciliated epithelial cells, and no  
23             cancer cells.

24 Q In a patient with an adenocarcinoma of the  
25 lung that begins in the lung, what would you

7842

1 expect to find in a bronchoscopy where  
2 brushings and washings were obtained?

3       A    I might or might not see any cancer cells  
4           there. It depends on whether the tumor was  
5           pushing into or eroding into a bronchus.

6 Q And, Doctor, what were the next group of  
7 pathology slides you reviewed with respect  
8 to Mrs. Wiley?

9 A The next one, I think, was the skin biopsy.

10 And I already said that that one had a  
11 poorly to moderately differentiated  
12 adenocarcinoma.  
13 Q Am I correct, we referred to that previously  
14 as the chest wall biopsy?  
15 A Yes.  
16 Q June 1st of 1991. And you actually looked  
17 at the slides?  
18 A I actually looked at the slide.  
19 Q Why do you actually look at the slides as  
20 opposed to just reviewing the medical  
21 records?  
22 A I would like to see what is there and  
23 convince myself that I'm seeing the same  
24 thing that the other pathologists are  
25 describing.

7843

1 Q And did you see anything in those slides  
2 that was inconsistent with what the  
3 pathologist who had conducted that analysis  
4 back in 1991 observed and reported?  
5 A No. I agree with their diagnosis.  
6 Q Did you next look at the pathology material  
7 obtained from the June 6th bronchoscopy  
8 conducted by Dr. Turner?  
9 A Yes.  
10 Q And again, did you actually look at the  
11 slides?  
12 A I looked at the slides of the washing,  
13 brushing, and this time a biopsy. I did not  
14 see any tumor.  
15 Q How much material do you need to obtain in  
16 one of these procedures in order to prepare  
17 a specimen to analyze?  
18 A It could be relatively small. If there's  
19 tumor present, not all the cells that you  
20 retrieve are going to be tumor. Can I make  
21 a diagnosis on one tumor cell? Yes, but I  
22 would be very much happier in making such a  
23 diagnosis with a group of them. Actually,  
24 the more -- the more the better, the more  
25 conclusive I would feel about it. But

7844

1 sometimes a single tumor cell can be  
2 diagnostic.  
3 Q Were the specimens that were obtained in  
4 that June 6th bronchoscopy ample enough or  
5 adequate enough to make the, who was involved in  
bringing the cases

3 to you?  
4 A J.C. McElveen brought the case of Mrs. Wiley  
5 for me to review.  
6 Q And that was in 1985. 1995, excuse me.  
7 A 1995.  
8 Q And when he walks over -- I think you said  
9 in your direct examination you had a  
10 two-headed microscope?  
11 A That's correct.  
12 Q And does Mr. McElveen actually look down  
13 while you're making the diagnosis in a case?  
14 A He will look down when I would ask him to do  
15 so, which would be only the several most  
16 meaningful slides in the case.

17 Q But he actually participates in the  
18 diagnostic process?  
19 A He does not participate in the diagnostic  
20 process.  
21 Q But you involve him in it?  
22 A I want him to see what I am describing.  
23 Q Now, your university is the University of  
24 California at Los Angeles; isn't that  
25 correct?

7861

1 A Correct.  
2 Q And you're aware, are you not, that UCLA has  
3 received between 1974 and 1982, at least,  
4 \$2.8 million from the tobacco companies  
5 which would include Brown & Williamson,  
6 Philip Morris, RJ Reynolds, and U.S.  
7 Tobacco?  
8 A I am entirely unaware of that statement.  
9 Q But you are aware that a Dr. Martin Cline,  
10 who was funded by the tobacco companies, who  
11 engaged in experimentation on humans was  
12 censured by a committee that you chaired;  
13 isn't that correct?  
14 A That is correct, but I didn't know until you  
15 mentioned in my deposition in December of  
16 1997 that Dr. Cline had ever had such  
17 funding.  
18 Q Let me show you a document.

19 MR. OHLEMEYER: Your Honor, I  
20 object to this as being beyond the scope of  
21 direct examination. Lacking in foundation  
22 at this point from this witness.

23 MR. MOTLEY: Your Honor --

24 THE COURT: I don't have a clue  
25 what we're talking about.

7862

1 MR. OHLEMEYER: That's basically my  
2 objection.

3 THE COURT: Good point.

4 (Bench discussion)

5 Q Dr. Porter, who is Dr. Martin Cline?  
6 A Dr. Martin Cline is a professor of medicine  
7 at UCLA. He came from University of  
8 California San Francisco, I guess, by the  
9 mid-1970s. He's done a lot of work at  
10 Oxford. I haven't laid eyes on him in more  
11 than a decade. I don't even know if he's  
12 still around.  
13 Q Did you know he was listed as a witness in  
14 this case for the tobacco companies?  
15 A No.  
16 Q But you did have something to do with  
17 Dr. Cline about ten years ago when you  
18 chaired a committee.  
19 A Probably closer to 15.  
20 Q Doctor, isn't it true that Dr. Cline was  
21 engaged in human experimentation that was  
22 funded by the tobacco companies and for the  
23 human experimentation that did not have  
24 appropriate approval, he was censured; he  
25 was disciplined?

7863

1 MR. OHLEMEYER: Your Honor, I

2 object to that as being argumentative, as  
3 irrelevant, as lacking foundation with this  
4 witness.

5 THE COURT: Are you talking about  
6 UCLA, Counselor?

7 MR. PATRICK: UCLA.

8 MR. OHLEMEYER: And it's actually  
9 not accurate, on top of it at all.

10 THE COURT: Well, if not, he'll  
11 tell us.

12 Did you understand the question?

13 THE WITNESS: Yes.

14 THE COURT: Can you answer the  
15 question?

16 A Yes. Dr. Cline did some inappropriate  
17 experiments because they had not been  
18 reviewed and approved on human subjects in  
19 Italy and in Israel. I have no idea where  
20 the funding for such studies came from and  
21 was never told. I always had a suspicion it  
22 was National Institutes of Health in the  
23 United States, because that was the  
24 documentation that I saw at the time.

25 Q Well, let me show you a document. I just  
7864  
1 ask for you to review it yourself, and ask  
2 you whether or not you've seen it before or  
3 whether or not it refreshes your memory?

4 THE COURT: Show it to counsel.

5 Q Do you recognize it?

6 A I have not seen this document ever.

7 Q All right. Does it indicate to you at  
8 all --

9 MR. OHLEMEYER: Objection, Your  
10 Honor, at this point now he's --

11 THE COURT: Sustained.

12 Q But, in any event, your committee  
13 investigated the activities of Dr. Cline,  
14 and as you told us at your deposition, that  
15 he did the experiments without proper  
16 permission and he was and should have been  
17 disciplined?

18 MR. OHLEMEYER: Asked and answered.

19 THE COURT: I think he did answer  
20 that, Counselor.

21 Q Now, Dr. Porter, you're not the only  
22 pathologist in your department who consults  
23 or testifies for the tobacco companies;  
24 isn't that correct?

25 A I don't know whether that is correct or not.  
7865  
1 I have heard indirectly that several others  
2 may have, but I have no direct knowledge.

3 Q Well, you told us at your deposition about a  
4 Dr. Walter Colson.

5 A I had reason to think he may have. I have  
6 never heard this from Dr. Colson.

7 Q What about Dr. Sanford Barski?

8 A I have heard this from attorneys, that he  
9 has. I have never heard that from  
10 Dr. Barski.

11 Q What attorneys have you heard that from?

12 MR. OHLEMEYER: Objection, Your

13 Honor, relevance.  
14 MR. MOTLEY: Yes, Your Honor, it is  
15 relevant.  
16 THE COURT: You're asking what he  
17 has heard from other attorneys? Objection  
18 is sustained.  
19 MR. MOTLEY: He can't ask who the  
20 attorneys are, Your Honor, not what they  
21 said?  
22 THE COURT: That's not what he  
23 asked.  
24 MR. MOTLEY: I said ask him what  
25 lawyers he heard from, not what he heard.

7866

1 Q Did you hear Mr. Motley's question?  
2 MR. OHLEMEYER: I object to the  
3 procedure, Your Honor. I object to the  
4 question as it's now framed.  
5 THE COURT: Let me hear the  
6 question.  
7 Q Which attorneys did you hear this from?  
8 MR. OHLEMEYER: Same objection,  
9 Your Honor.  
10 THE COURT: You can answer that.  
11 A I honestly don't remember for sure who it  
12 was.  
13 Q It wasn't Mr. McElveen?  
14 A I don't think so.  
15 Q Is Mr. McElveen, does he practice in Los  
16 Angeles at Jones Day?  
17 MR. OHLEMEYER: Same objection,  
18 Your Honor. Beyond the scope of direct,  
19 relevance.  
20 THE COURT: I'll allow that, but  
21 you're getting a little far afield.  
22 MR. PATRICK: That's fine.  
23 THE COURT: You can answer the last  
24 question.  
25 A Washington, D.C.

7867

1 Q Now, Dr. Porter, at the time we took your  
2 deposition, I believe you had spent 32 hours  
3 on this case.  
4 A Correct.  
5 Q And have you spent any additional time on  
6 the case since then?  
7 A Yes, I have. The total at this point is  
8 about 55 hours.  
9 Q And you charge at the rate of \$250 an hour?  
10 A That is correct. And I will add, by my  
11 contract, the money is turned in to the  
12 chairman of my department. It goes into his  
13 discretionary fund and is used for  
14 departmental purposes. I get no personal  
15 benefit from the charges.  
16 Q It goes back to UCLA then.  
17 A It goes into the chairman's discretionary  
18 fund, not to UCLA as a whole.  
19 Q And from that discretionary fund, you are  
20 able to draw off for certain expenses and  
21 things of that nature?  
22 A Not me.  
23 Q Not you?

24 A Not me.  
25 Q You don't know if any other pathologists do  
7868  
1 that?  
2 A I have reason to think that most of it is  
3 distributed for research purposes.  
4 Q Now, Dr. Porter, you were, in 1992, listed  
5 in another tobacco case, the Haynes case.  
6 Are you familiar with that case?  
7 A Yes, I am.  
8 Q And in that case you were listed as an  
9 expert to state that in that particular case  
10 the type of cancer was a scar cancer that  
11 could not have been caused by cigarette  
12 smoking. Do you recall that?  
13 MR. OHLEMEYER: Objection, Your  
14 Honor, relevance.  
15 THE COURT: I don't see how in the  
16 world that's relevant.  
17 MR. PATRICK: Well, Your Honor, I  
18 think it goes to the fact that he reviews  
19 cases in order to dispute the diagnosis that  
20 have been made by the local and the treating  
21 doctors.  
22 THE COURT: Sustained.  
23 Q Now, Doctor, you're of the opinion that  
24 Mrs. Wiley did not have breast cancer; isn't  
25 that correct?  
7869  
1 A I don't think Mrs. Wiley had breast cancer,  
2 but the autopsy failed to examine the  
3 breasts, which I think was not good. And  
4 since she had had a breast lesion biopsied  
5 many years before, I certainly would have  
6 had made slides from the breast tissue.  
7 Q At your deposition you stated that you had  
8 no positive reason to say that Mrs. Wiley  
9 had breast cancer.  
10 A That is correct.  
11 Q And at your deposition I also believe you  
12 said that you were of the opinion that the  
13 Rubin Textbook of Pathology was an authority  
14 in its field and an authoritative text in  
15 pathology?  
16 A That is one of a number of authoritative  
17 texts.  
18 Q And this is the Rubin Textbook on Pathology?  
19 A Would you bring it over so I can see the  
20 edition?  
21 Q All right.  
22 A Second edition, 1994, yes.  
23 Q All right. Would you turn to page 795,  
24 please.  
25 A I have that.  
7870  
1 Q And at the right-hand side of the page,  
2 under Chemical Carcinogens, and this is a  
3 chapter that concerns neoplasms of the  
4 exocrine pancreas; is that correct?  
5 A Yes.  
6 Q And the very last sentence on that page is,  
7 isn't it, "Nitrosamines are of particular  
8 interest because in hamsters they induce

9 adenocarcinoma of the pancreatic ducts, the  
10 predominant hematype of pancreatic cancer."  
11 Isn't that correct?  
12 A That's a correct rendition of the sentence.  
13 Q And, in fact, you stated at your deposition  
14 that it was your opinion that one of the  
15 risk factors for pancreatic cancer was  
16 tobacco smoke.  
17 A I did state that opinion and also qualified  
18 it that that meant direct smoking.  
19 Q All right. Are you aware that there are  
20 nitrosamines in environmental tobacco smoke?  
21 A I would prefer not to get into that, because  
22 I have no expertise on the subject.  
23 Q Now, on that slide that you had, we heard  
24 from -- we had seen that particular slide  
25 before and Dr. Roggli testified about that,

7871

1 or assume that he testified about that.  
2 Would you agree generally that the  
3 appearance of that slide, or the tissue  
4 under the microscope doesn't really tell you  
5 anything; that it looks just like cancer in  
6 the lung or cancer in the kidney or cancer  
7 in the pancreas? It's all one cancer?  
8 A I don't agree with the way you put the  
9 thing. The case of Mrs. Wiley, I already  
10 said that it looks like she has one cancer  
11 in multiple sites, and I also gave my  
12 opinion that the primary site is the  
13 pancreas.  
14 Q But assume that Dr. Bennett, another  
15 pathologist for the defendants, testified in  
16 this case and he said that, "Under the  
17 microscope, you can't tell where the cancer  
18 started. It's a poorly differentiated  
19 adenocarcinoma. It could be lung, it could  
20 be pancreas, or it could be kidney, it could  
21 be -- the microscopic appearance is very  
22 difficult to make a diagnosis."  
23 A I have no opinion of what Dr. Bennett said  
24 because I didn't hear him. I agree with the  
25 part of the statement that this is a

7872

1 relatively poorly differentiated  
2 adenocarcinoma. I pointed out previously  
3 that because it is invading around the  
4 ducts, around the islets of Langerhans, that  
5 it is presumptively a primary carcinoma of  
6 the pancreas.  
7 Q Well, when the autopsy was done, the largest  
8 tumor in Mrs. Wiley was in the central right  
9 lobe, wasn't it?  
10 A Agreed.  
11 Q Right middle lobe of the lung; correct?  
12 A And they did not even identify that there  
13 was anything wrong with the pancreas at that  
14 time.  
15 Q They identified that there was a cancerous  
16 peripancreatic lymph node, did they not?  
17 A But they did not obtain that lymph node to  
18 show me on a slide later.  
19 Q Well, you weren't involved in the autopsy.



20 A I was not.  
21 Q You weren't on the scene when Mrs. Wiley was  
22 sick and was dying, were you?  
23 A Certainly not.  
24 Q And you were called in to give a consult in  
25 this case.

7873

1 A That is correct, until much later.  
2 Q And when the autopsy was done -- strike  
3 that.  
4 You had no opportunity to review the  
5 organs grossly, did you?  
6 A No.  
7 Q All you saw was what was on a slide.  
8 A And the gross descriptions.  
9 Q The gross descriptions by the pathologist  
10 who did the autopsy; correct?  
11 A Mostly by the resident.  
12 Q Well, the resident and the pathologist got  
13 together and generated this autopsy report;  
14 correct?  
15 A I don't know to what degree who did what  
16 there.  
17 Q All right. But the conclusion of the  
18 autopsy report is that she had lung cancer;  
19 correct?  
20 A Correct. And I think they're wrong.  
21 Q Primary lung cancer.  
22 A I think they're wrong.  
23 Q Now, Doctor, if this were a pancreatic  
24 cancer -- strike that.

25 What is the clinical course of

7874

1 pancreatic cancer? What is the survival  
2 time?  
3 A Okay. Survival is very poor in pancreatic  
4 cancer, which is a moderately common tumor.  
5 There are about 27,000 cases per year in the  
6 U.S.  
7 Since the tumors in the head of the  
8 pancreas tend to make earlier symptoms,  
9 there's about a 2 percent five-year  
10 survival.  
11 Of tumors in the body and tail, where I  
12 think this one probably was, I know from  
13 looking at the literature of one five-year  
14 survival total. Not 1 percent. One.  
15 Q So if the tumor in this case in the right  
16 middle lobe of the lung may have been  
17 present radiologically, that is seen on a  
18 chest X-ray in 1986, if this were truly a  
19 pancreatic metastasis, or travelled up from  
20 the pancreas to the lung, by 1991, based on  
21 those statistics, Mrs. Wiley would have been  
22 dead prior to her disease in 1991. Correct?  
23 A I'm not sure that this makes sense because I  
24 don't know of anything in 1986 that would  
25 say for sure that she had a tumor in the

7875

1 lung.  
2 Q Well, Doctor, let me show you a report  
3 that's in evidence as Plaintiffs' 14, Your  
4 Honor.

You see where I've highlighted CXR. That stands for chest X-ray, doesn't it?

A It does.

Q And it's got an arrow that points up, it says "density middle lobe, right lung"; correct?

A     Correct.

MR. PATRICK: Your Honor, at this time, may I hand out copies to the jury? It's in evidence.

THE COURT: All right.

Q Doctor, again, over to the side, it says "Physicians History and Physical," toward the bottom of the page, "CXR" -- arrow pointing up, "density middle lobe, right lung."

Dr. Porter, that's exactly the same place that the autopsy identified the largest tumor in her body in 1991, June 24, 1991, when she died; isn't that correct?

A Without looking at the films from later, I  
7876

would not agree necessarily exactly same place. And I would also point you to three lines down where their diagnostic impression is possible early pneumonia.

Q That's correct. They didn't, at that time, didn't fully appreciate --

A Based on the timing, I would doubt that this was evidence of tumor.

Q It's pretty suspicious that it's in the middle lobe of the right lung, exactly where her cancer was first detected?

A I didn't agree to exactly where. And whether it were a lung primary or a pancreatic primary, I think it is somewhat unlikely to have not caused trouble in between.

Q Adenocarcinomas, we've heard evidence, tend to be slower growing. Do you agree?

A Than what?

Q Do you agree -- a slower growing tumor certainly than a pancreatic cancer; correct?

A Okay. You didn't define it all the way.  
Adenocarcinoma of what primary origin do you  
want to say is slower growing?

Q A lung primary is slower growing than a

pancreatic adenocarcinoma; correct?

A It does not necessarily follow that this is true all or even most of the time.

Q Now, at the time, based on this chest X-ray report, or this report of the physician, who found a density in the middle lobe of her right lung, at that time, they thought it just might be a pneumonia and did not call it cancer at that time; correct?

A     Correct.

Q So it was just suspicious at that point.  
They didn't know what was causing it.

A And, in fact, they treated her with an antibiotic, Erythromycin.

Q And you looked at all the medical records,

16 have you not?  
17 A I did not see this piece before.  
18 Q You haven't seen this particular medical  
19 record?  
20 A No, I have not.  
21 Q When we took your deposition, you gave us a  
22 big box of all the medical records --  
23 A This one was not in there.  
24 Q It was not in there. Where did you get all  
25 these medical records, the ones that you

7878

1 gave us at your deposition?  
2 A I got them from Jones Day.  
3 Q Jones Day. And that's Mr. McElveen's law  
4 firm that represents RJ Reynolds; correct?  
5 A Correct.  
6 Q And not only did they send you the medical  
7 records, they sent you the depositions of  
8 treating physicians; correct?  
9 A Correct.  
10 Q They sent you the depositions of the expert  
11 witnesses that we called, Dr. Roggli and  
12 Dr. --  
13 A Correct.  
14 Q Dr. Turner and Dr. Songer, I believe, was  
15 included.  
16 A Correct.  
17 Q You even had Dr. Cagle's deposition in the  
18 case?  
19 A Correct.  
20 Q You had all the exhibits; correct? You had  
21 exhibits to --  
22 A I had exhibits, but what I don't know is  
23 whether I had all the exhibits.  
24 Q And did you -- from what you had, though,  
25 did you analyze those materials, factor

7879

1 them, or try to factor them into your  
2 judgment, and come to your own conclusion as  
3 to what this tumor was?  
4 A No. Because I had come to the conclusion of  
5 what the tumor was on November 15th, 1995,  
6 and I didn't have most of that other  
7 material in my possession until nearly two  
8 years later.  
9 Q Why did you continue to get this material  
10 from the attorneys?  
11 A They didn't start sending me the material  
12 until probably mid- or late October 1997.  
13 Q Well, did you read all of it?  
14 A I read every word.  
15 Q Every word?  
16 A Yes, and this paper was not in there.  
17 Q Well, Doctor, if you read every word, did  
18 you read a report of a Dr. Winkler dated May  
19 28, 1993, concerning the diagnosis in this  
20 case?

21 Doctor, does that refresh your  
22 recollection?

23 A No, it does not, because I don't believe  
24 that this piece of paper was in the  
25 materials that I was presented.

7880

1 Q Doctor, I believe you gave us a box.  
2 A Yes, I did.  
3 Q I believe you had Dr. Turner's deposition  
4 and all of the exhibits. I believe --  
5 A Like I said, I don't know that I had all the  
6 exhibits.  
7 Q Well, these -- let me represent to you that  
8 this is your deposition, you turned all this  
9 over to us, and that the reason we have it  
10 is because it was an Exhibit 11 of the  
11 materials that you gave to us.  
12 A Okay.  
13 Q All right?  
14 A Maybe I missed that page.  
15 Q All right. And in this letter, Dr. Winkler  
16 writes to Dr. Turner.

17 MR. OHLEMEYER: It's hearsay, Your  
18 Honor. If he wants to bring in Dr. Winkler,  
19 bring in Dr. Winkler.

20 THE COURT: Is this in evidence?

21 MR. PATRICK: Not yet.

22 Your Honor, at this time we'd move it  
23 in as the next plaintiffs' exhibit as a  
24 document or letter that was actually  
25 tendered by Dr. Porter to us of all of the

7881

1 materials which he said he read every word  
2 concerning the diagnosis in this case.

3 MR. OHLEMEYER: It's still hearsay.

4 MR. MOTLEY: It's not hearsay, Your  
5 Honor. An expert has to rely on it, whether  
6 it's in court or out of the court. We've  
7 been doing that since we got here. He said  
8 he read every word in the record, and then  
9 he produced this record.

10 THE COURT: Was the testimony that  
11 he actually received this?

12 MR. MOTLEY: Yes, sir, from the  
13 lawyers.

14 MR. WAGNER: Judge, this was a  
15 document attached to Dr. Turner's  
16 deposition. It has nothing at all to do  
17 with the actual medical records that pertain  
18 to -- I should stand up -- pertain to  
19 Mrs. Wiley. It's part of that memorandum  
20 that Dr. Turner generated when she was  
21 talking to other physicians about what  
22 should be done in connection with this case  
23 and so forth. So it's not an actual medical  
24 record that pertains to the treatment of  
25 Mrs. Wiley. Therefore, the doctor wouldn't

7882

1 have relied on it or looked to it; and if it  
2 was in his file, it was because it was  
3 attached to Mrs. Wiley's -- excuse me,  
4 Dr. Turner's deposition and was produced in  
5 Dr. Turner's deposition.

6 MR. MOTLEY: He either read all the  
7 records --

8 MR. WAGNER: It certainly is  
9 hearsay.

10 THE WITNESS: I've read all the  
11 medical records.

12 THE COURT: Just a minute, Doctor.  
13 MR. MOTLEY: He either read  
14 everything or he didn't read everything. It  
15 goes to his credibility in that regard, but  
16 furthermore, Your Honor, the defendants  
17 chose to send these documents to him and  
18 that we should be allowed to test his  
19 opinion based upon medical records that he  
20 can reject them or say he doesn't agree.  
21 But we certainly, under Rule 703, are  
22 entitled to confront him with this  
23 particular document having said to the jury  
24 moments ago he read every word.

25 MR. OHLEMEYER: Every exhibit to  
7883

1 every deposition doesn't come in over a  
2 hearsay objection. This is hearsay.

3 THE COURT: I agree.

4 MR. MOTLEY: I didn't say it comes  
5 into evidence. I think he can confront him  
6 with the question. Thank you.

7 THE COURT: Something else,  
8 Mr. Patrick?

9 MR. PATRICK: Your Honor, I was  
10 going to offer it into evidence, but let me  
11 see if I can lay a foundation.

12 THE COURT: All right. It's  
13 withdrawn temporarily. It will be 103.

14 BY MR. PATRICK:

15 Q You have the letter in front of you, Doctor?

16 A The one from Dr. Winkler?

17 Q Dr. Winkler.

18 A Yes.

19 Q Did not Dr. Winkler --

20 MR. WAGNER: Well, object, Your  
21 Honor, to reading from a document that's not  
22 in evidence. I mean, he has to lay a  
23 foundation first before he can read from it.

24 THE COURT: Now you have  
25 represented to the Court, Counselor,

7884

1 Mr. Patrick, that this was a document that  
2 you received from this witness?

3 MR. PATRICK: That is correct, Your  
4 Honor. We went and took his deposition.

5 THE COURT: And I heard his  
6 testimony and, therefore, 103 is admitted.

7 (Plaintiffs' Exhibit(s) 103 received in  
8 evidence.)

9 MR. PATRICK: Thank you, Your  
10 Honor.

11 BY MR. PATRICK:

12 Q Dr. Porter, do you have the letter, 103, in  
13 front of you now?

14 A Yes.

15 Q Dr. Winkler, Ralph F. Winkler, pathologist,  
16 writing to Nicki Turner, dated May 28, 1993,  
17 and as I understand your testimony, you did  
18 not receive this material until two years  
19 later? Correct?

20 A Correct.

21 Q And he states, "Dear Dr. Turner, I have  
22 reviewed the autopsy on Mildred Wiley

23 performed at Ball Memorial Hospital, 32-91,  
24 as well as the accompanying patient's  
25 radiographs. In summation I feel that the

7885

1 patient's neoplasm most likely represents a  
2 primary lung adenocarcinoma. I do not feel  
3 that this represents either a breast primary  
4 or an adenocarcinoma arising in the  
5 pancreas. If I may be of any additional  
6 assistance, please do not hesitate to  
7 contact me. Thank you for allowing me to  
8 review this interesting case."

9 Do you agree or disagree with  
10 Dr. Winkler's diagnosis?

11 A I disagree with it.

12 Q Now, in reviewing the medical records in  
13 this case, you found out or determined that  
14 Mrs. Wiley developed a cough in October of  
15 1991; isn't that correct?

16 A That is correct.

17 Q And she began to cough up blood. Isn't that  
18 correct?

19 A That is correct.

20 Q And that is a symptom that you will see in  
21 primary lung cancer; isn't that correct?

22 A Knowing what we know right now, not  
23 necessarily with adenocarcinomas. It would  
24 be more common with other tumor types. And  
25 since she apparently wasn't coughing up

7886

1 blood later, I remain unconvinced as to  
2 whether that had anything to do with tumor.

3 Q Well, in lung cancer, primary lung cancer,  
4 that is a common symptom, one of the first  
5 symptoms that you see.

6 A With certain of the tumors.

7 Q And I believe there's been testimony, and I  
8 believe there's a medical record, and it is,  
9 I believe, Plaintiffs' Exhibit No. 18, which  
10 is the bronchoscopy report -- do you recall  
11 the bronchoscopy report of Dr. Turner dated  
12 June 6, 1991?

13 A I do.

14 Q All right. Let me hand you it.

15 MR. PATRICK: Your Honor, this is  
16 Plaintiffs' 18 in evidence. May I hand to  
17 the bailiff extra copies to give to the  
18 jury?

19 THE COURT: All right.

20 MR. OHLEMEYER: Well, I want to be  
21 sure how this has been described, Your  
22 Honor. As you know, there are two versions  
23 of this. This is the July version. So for  
24 clarity sake, we need to make sure whether  
25 the doctor is talking about the June version

7887

1 or the July version.

2 THE COURT: I have a date 6/6/91 at  
3 the top. This is 18. Is it in evidence?

4 MR. OHLEMEYER: I think they're  
5 both in evidence, Your Honor. There was a  
6 June dictation, you recall, and a July  
7 dictation.

8 THE COURT: See the original 18.  
9 MR. OHLEMEYER: See, this is part  
10 of 18.  
11 (Bench discussion)  
12 THE COURT: Talk to him about 18.  
13 BY MR. PATRICK:  
14 Q Do you recall the bronchoscopy report?  
15 A I recall both.  
16 Q Both. And do you recall Dr. Turner  
17 describing the fact that when she put the  
18 bronchoscope down the chest, the airways of  
19 Mrs. Wiley, she encountered tumor? That was  
20 her description.  
21 A Yes.  
22 Q Now, there was a chest wall biopsy done, I  
23 believe it was on June the 3rd, 1991; isn't  
24 that correct?  
25 A Yes.

7888

1 Q There was a pathology report that  
2 accompanied that biopsy -- or the  
3 pathologist looked at the biopsy and came to  
4 a conclusion; isn't that correct?  
5 A Correct.  
6 Q And, Doctor, I think it was Dr. Brown  
7 concluded that it was a poorly  
8 differentiated carcinoma; correct?  
9 A Correct.  
10 Q And that it was mucin negative; correct?  
11 A Correct.  
12 Q And that in -- when you have adenocarcinomas  
13 of the pancreas, as described by the  
14 pathology textbooks, about three-quarters of  
15 them are mucin positive; isn't that correct?  
16 A The number I keep in my head is that only  
17 about 15 percent of them are mucin positive.  
18 Q All right. You still have Dr. Rubin's  
19 textbook up there?  
20 A I do.  
21 Q Would you look at page 796.  
22 A Okay.  
23 Q Right-hand side, bottom paragraph.  
24 "Microscopically more than 75 percent of  
25 ductal adenocarcinomas of the pancreas are

7889

1 well differentiated, secrete mucin."  
2 Do you see that?  
3 A I do.  
4 Q And then it goes on, "stimulates a flora  
5 deposition of collagen process referred to  
6 as the desmoplastic reaction"; correct?  
7 A Correct.  
8 Q So that if this -- if this tumor was mucin  
9 negative, that is not in keeping with a  
10 primary pancreatic adenocarcinoma?  
11 A My number of the percentage of mucin  
12 producers would be substantially lower than  
13 that. I don't think it helps one way or the  
14 other.  
15 Q Now, you've already said you didn't have a  
16 chance to look at the actual organ, the  
17 pancreas itself, at the autopsy.  
18 A I didn't. I did not have such opportunity.

19 Q So there's no way for you to tell how large  
20 the tumor was in the pancreas if, in fact,  
21 there was a tumor there.  
22 A In this particular case, I would rather  
23 presume it would be one of the diffuse-type  
24 tumors or the resident and Dr. Kocoshis  
25 would have described it.

7890

1 Q Well, it was not detected by Dr. Kocoshis at  
2 autopsy; isn't that correct?  
3 A That is correct.  
4 Q And Dr. Songer, assume that Dr. Songer  
5 testified that it was less than an inch or  
6 less than two inches in size, about the size  
7 of a marble. That would be the type of  
8 tumor that would typically be missed during  
9 an autopsy?  
10 A I have no way to know that. A tumor that  
11 size most of the time you will find easily.  
12 Q But the tumors in the lung were certainly  
13 much larger than the tumor in the pancreas?  
14 A We don't know what was in that pancreas  
15 because it wasn't described.  
16 Q Well, it was described that there was a  
17 tumor in the peripancreatic lymph node;  
18 isn't that correct, in the autopsy report?  
19 A Yes, but that is not in the pancreas.  
20 Q What was the -- what did you find the  
21 histologic appearance? Looking at in under  
22 the microscope, what did it look like to  
23 you, the tumor in the pancreas?  
24 A Okay. I have showed that on the photograph  
25 to the jury. There is quite a bit of

7891

1 variation in size, shape and intensity of  
2 staining of the whole cell, of the nucleus.  
3 There is some connective tissue formation,  
4 so-called desmoplastic response. The degree  
5 of differentiation is not particularly good.  
6 Q Dr. Roggli described it as a papillary and  
7 acinar appearance?  
8 A Acinar carcinomas of the pancreas are a  
9 relatively rare subtype that have an  
10 exceedingly distinct appearance. They are  
11 about only 1 percent of pancreatic  
12 carcinomas. This one is clearly not that  
13 type.  
14 Q So did you find it to be papillary in  
15 nature?  
16 A I did not note particular papillary features  
17 either.  
18 Q So you would not -- would you be in a  
19 position of agreeing or disagreeing if  
20 Dr. Roggli said that this was a, had a  
21 papillary or acinar appearance?  
22 A I disagree.  
23 Q You disagree. Now, you had Dr. Roggli's  
24 deposition and his report prior to your  
25 testifying in this case.

7892

1 A I did.  
2 Q And did you analyze that?  
3 A I read that. There's no way to analyze that



4 because I didn't see it.  
5 Q Now, more likely than not, if you have a  
6 pancreatic cancer, it begins in the head of  
7 the pancreas as opposed to the tail; isn't  
8 that correct?  
9 A Fifty or 60 percent of them seem to begin in  
10 the head.  
11 Q Well, in Dr. Rubin's textbook, he says 60  
12 percent; Dr. Songer said 70 percent. Do you  
13 have any reason to disagree with those  
14 percentages?  
15 A Seventy percent is a little on the high  
16 side.  
17 Q And if you've got a tumor in the head of the  
18 pancreas, you're blocking the bile duct and  
19 you may become jaundiced, in other words,  
20 Mrs. Wiley may have become yellow in  
21 appearance if it was in the head of the  
22 pancreas.  
23 A That would be quite consistent, yes.  
24 Q And the tumors -- and if it's in the tail of  
25 the pancreas, the tumor is usually much

7893

1 larger than the tumor that you find in the  
2 head of the pancreas; isn't that correct?  
3 A That is correct. But like I said, 20 or 22  
4 percent of the entire group of pancreatic  
5 carcinomas are the diffuse type that instead  
6 of making a mass, diffusely involve the  
7 pancreas.  
8 Q And the most common organ to which  
9 pancreatic spreads is the liver; isn't that  
10 correct?  
11 A Yes. With the proviso that this is  
12 principally due to the fact that the head of  
13 the pancreas is right in the hilus of the  
14 liver. A slight majority of pancreatic  
15 tumors occur in the head so, of course, they  
16 go to the liver.  
17 Q Dr. Songer said pancreatic cancer is not  
18 typically a bone-seeking cancer, that it  
19 doesn't metastasize to the bone.

20 MR. OHLEMEYER: Object to the form  
21 of the question.

22 MR. PATRICK: Let me rephrase it.

23 THE COURT: Sustained. All right.

24 Q Would you agree that pancreatic cancers  
25 don't usually -- it's uncommon for them to

7894

1 head to the bone, to metastasize to the  
2 bone?  
3 A They metastasize to bone in my experience at  
4 least a moderate amount of the time.  
5 Q That's not what is described in the  
6 pathology textbooks, is it?  
7 A That's from the experience and some of the  
8 recent papers. They do get into bone.  
9 Q You said your experience was that lung  
10 metastasis, metastasis from the lung don't  
11 go to the pancreas?  
12 A Pretty well, yes.  
13 Q In the literature it's stated that lung  
14 metastasis can go anywhere, any organ system

15 of the body?  
16 A Okay, agreed. I have never seen an  
17 adenocarcinoma of the lung go into the  
18 pancreas, in my personal experience.  
19 Q That's you, Dr. Porter's experience.  
20 A That's my personal experience.  
21 Q But you would not dispute that in the  
22 medical literature, and we can look at the  
23 DeVita textbook and the Dail and Hammar  
24 textbook, it's described that lung cancers  
25 metastasize to every organ system of the  
7895  
1 body; correct?  
2 A I don't dispute that.  
3 Q I believe you were also sent not only  
4 Dr. Cagle's deposition, but his report in  
5 this case as well.  
6 A That is correct.  
7 Q Does that report concerning the P53 gene and  
8 the DNA analysis have any significance to  
9 you? Did you consider it?  
10 A In what sense?  
11 Q Did you factor it into your decision?  
12 A I had made my diagnosis on morphologic  
13 grounds several years before I saw this  
14 report.  
15 Q When you saw Dr. Cagle's report, did you  
16 say, I've got to take that into  
17 consideration and then reject it, or what  
18 did you do?  
19 A I ascertained something about the controls  
20 used and have some hesitation about the  
21 findings presented in that report.  
22 Q But you would agree that what you saw, what  
23 was sent to you by the Jones Day firm,  
24 Dr. Cagle's report, was that Dr. Cagle, in  
25 fact, found --

7896

1 MR. OHLEMEYER: Objection, Your  
2 Honor, if they want Dr. Cagle's testimony to  
3 be put before the jury, they ought to bring  
4 Dr. Cagle to testify.  
5 THE COURT: Last was argumentative.  
6 Why don't you rephrase that.  
7 Q Do you recall what Dr. Cagle had to say  
8 about what he found with reference to the  
9 P53 gene?  
10 A Let me see if I can find a copy of the  
11 report.  
12 MR. OHLEMEYER: Your Honor, I  
13 object to all of this. This witness formed  
14 his opinion without relying on this. The  
15 fact that it's been part of a deposition  
16 doesn't make it admissible. This isn't  
17 evidence the jury ought to hear in this  
18 form, so I object to it as being hearsay.  
19 MR. PATRICK: Your Honor, I believe  
20 he's got the report, that he considered the  
21 report, he had some comments on it. I would  
22 like to --  
23 THE COURT: Last question was all  
24 right.  
25 A Okay. I have a report from Dr. Cagle dated

1 November 12, 1997. Is that the report you  
2 wish to discuss?

3 Q Let me check, Doctor, I believe that it is.  
4 MR. PATRICK: May I approach the  
5 witness, Your Honor?

6 MR. OHLEMEYER: Your Honor, may we  
7 approach?

8 (Bench discussion)

9 THE COURT: Go ahead, Mr. Patrick.

10 MR. PATRICK: Thank you, Your  
11 Honor.

12 May I approach the witness, Your Honor?

13 THE COURT: Yes.

14 Q Let me show you this report. Now, Doctor,  
15 could you take what I handed you and compare  
16 it to what you have in your hand.

17 A I'm in the process of doing so.

18 Q Okay.

19 A Without going through the entire thing, just  
20 looking at it in about six places, it  
21 appears to be the same.

22 Q Same report; correct?

23 A Yes.

24 Q And there's a cover fax page on what I  
25 handed you. Let me represent to you this is

1 what you gave to us at your deposition. Do  
2 you see the cover fax page?

3 A Yes.

4 Q And can you tell from that where this report  
5 came from, the original transmission, where  
6 did it originate?

7 MR. OHLEMEYER: Objection,  
8 relevance, Your Honor.

9 MR. PATRICK: I'm trying to lay the  
10 foundation.

11 THE COURT: All right. Go ahead,  
12 you can answer that.

13 A It's labeled Krieg DeVault Alexander &  
14 Capehart.

15 Q All right. And where is that located?

16 A The bottom, it's indicated to be  
17 Indianapolis.

18 Q All right. And is this addressed to you,  
19 Dr. David M. Porter?

20 A They got the middle initial wrong.

21 Q Okay. What's the date?

22 A 11/14/97.

23 Q On or about the time you received this  
24 report, did anybody call you on the  
25 telephone to discuss this report with you?

1 A I have no recollection that anybody called  
2 me.

3 Q Do you have any recollection that -- well,  
4 at the time that you received the report,  
5 did you look at it? Did you read it?

6 A Yes.

7 Q Did you do any research as a result of it?  
8 Did you look at anything in the medical  
9 literature?

10 A When?

11 Q Right after you read the report.  
12 A No.  
13 Q What did you do after you read the report?  
14 A Put it in the box.  
15 Q In the box, the box of materials you gave to  
16 us at the deposition?  
17 A Yes.  
18 Q At some point you received a deposition of  
19 Dr. Cagle; isn't that correct?  
20 A That is correct.  
21 Q And who did you receive the deposition from?  
22 A I can't recall that, and I don't have that  
23 deposition with me.  
24 Q And you also at some point received this  
25 Denissenko article that concerned this P53  
7900

1 test; isn't that correct?  
2 A No. I had torn that out of my own copy of  
3 Science magazine way before then.  
4 Q So you had your own copy of the Denissenko  
5 report that appeared in Science magazine?  
6 A Yes.  
7 Q And did you attempt to read that article and  
8 compare it and make some comparisons between  
9 the article and the report from Dr. Cagle?  
10 MR. OHLEMEYER: Your Honor, I  
11 object. At this point now we're beyond the  
12 scope of the direct. He's asking the  
13 witness for an opinion.

14 MR. PATRICK: I'm still trying to  
15 lay a foundation, Your Honor.

16 THE COURT: Foundation only. Go  
17 ahead.

18 A What am I supposed to answer now?  
19 Q I can't tell you. Did you take the Science  
20 article that you already had, the original  
21 article, and compare it to what Dr. Cagle  
22 had done, in any way?  
23 A No. I remembered what the Science article  
24 said. I had it there -- I had it there. I  
25 don't know that I made a comparison.

7901

1 Q Well, did you consider in this case, in the  
2 Wiley case, the relevance of the Cagle  
3 report, Dr. Cagle's report, that was faxed  
4 to you by the defendants?

5 A In what -- in what way?

6 Q Did you get it and you said, I don't know  
7 what this is and throw it in the trash, or  
8 did you read it and consider it in the  
9 formation ultimately of the opinion you  
10 expressed here today?

11 A I had largely developed my opinion two years  
12 before this was faxed to me. Of course, I  
13 considered it as to whether I wanted to  
14 change my mind or something.

15 Q Well --

16 A I found it insufficient to want to change my  
17 mind. But, of course, I read it and  
18 considered it.

19 Q When you did your original analysis in 1995,  
20 the P53 test that we have here today, we've  
21 been talking about -- another witness talked

22 about earlier, wasn't available in 1995, was  
23 it?

24 A I don't know about the availability, but it  
25 was certainly possible to both stain for P53  
7902

1 in 1995, and it was possible to sequence it.  
2 No problem.

3 Q Well, as far as the Denissenko article  
4 didn't come out until 1996; correct?

5 A That is correct.

6 Q So the implications from the tests that may  
7 have been done weren't fully revealed until  
8 the Denissenko article in Science magazine  
9 came out in September of 1996?

10 MR. OHLEMEYER: Objection, Your  
11 Honor, argumentative.

12 MR. PATRICK: If you know.

13 THE COURT: Sustained.

14 Q Doctor, you said that you considered it, but  
15 you found it insufficient. Isn't that  
16 correct?

17 A That is correct.

18 Q Is there a reason why you didn't do your own  
19 tests, your own P53 test?

20 A I was only offered for review the  
21 hematoxylin and eosin slides. I was neither  
22 requested nor had the availability of the  
23 blocks or other tissues from Mrs. Wiley that  
24 I could have done a P53 test.

25 Q Did you ask that one be done? Did you ask  
7903

1 for the blocks so that you could do a test?

2 A No, I did not.

3 Q You could have asked Mr. McElveen for the  
4 blocks back so a test could be done.

5 MR. OHLEMEYER: Argumentative, Your  
6 Honor.

7 THE COURT: Sustained.

8 Q Could you have obtained material, if you so  
9 desired, to have this test run if you wanted  
10 to do it?

11 A I have no way to know whether I could have  
12 or not.

13 Q Did you call Mr. McElveen after you received  
14 this fax about Dr. Cagle?

15 A I don't believe I have talked to him since  
16 then.

17 Q Did you talk to anyone prior to your  
18 deposition, representing the defendants,  
19 about this test prior to the time we took  
20 your deposition?

21 A Probably.

22 Q Now, would you look at the second page of  
23 the report. Dr. Cagle --

24 MR. OHLEMEYER: Your Honor, I  
25 object to any reference or use of this on  
7904

1 this foundation.

2 THE COURT: You're offering this on  
3 a limited basis, Counselor?

4 MR. PATRICK: On a limited basis,  
5 Your Honor.

6 THE COURT: Is it marked? It's not

7 marked. What is the next?  
8 MR. MOTLEY: 104, Your Honor.  
9 THE COURT: Thank you.  
10 MR. MOTLEY: No.  
11 MR. CASSELL: No, Your Honor, 105  
12 is the next one.  
13 THE COURT: 105, I've been advised.  
14 All right.  
15 The Court is satisfied with the  
16 foundational elements here.  
17 Ladies and gentlemen, this is  
18 introduced. You may recall when some other  
19 experts testified, I advised you that  
20 certain evidence would be admitted, not as  
21 substantive evidence on the principal issues  
22 involved in what we're doing in this trial,  
23 but on the issue of how you should evaluate  
24 the testimony of this particular expert  
25 witness. That's the only reason it is  
7905  
1 admitted, for that limited basis. 105.  
2 (Plaintiffs' Exhibit(s) 105 received in  
3 evidence.)  
4 Q Dr. Porter, turning to the second page,  
5 beginning with Comment, I would like for you  
6 to read to the jury the first -- the two  
7 paragraphs including the diagnosis and then  
8 I'm going to ask you some questions.  
9 Would you read those paragraphs to the  
10 jury, please.  
11 MR. OHLEMEYER: Same objection,  
12 Your Honor.  
13 THE COURT: Noted and overruled.  
14 A Approximately 60% of lung cancers have  
15 mutations in the P53 tumor suppressor gene."  
16 How far do you want me to go?  
17 Q Read both paragraphs, including the  
18 diagnosis, down to his signature.  
19 A "The presence of mutations was strongly  
20 suggested by the immunopositivity for p53  
21 since mutations result in stabilized p53  
22 mutant protein. The identification of  
23 mutations within exons 5 and of indicate p53  
24 mutations in the region of the p53 gene in  
25 which mutations caused by tobacco smoke are  
7906  
1 found. The identification of a G to T  
2 mutation in codon 157 of exon 5 of the p53  
3 gene indicates that this lung cancer is the  
4 result of exposure to tobacco smoke. This  
5 mutational hot spot is specific for lung  
6 cancer.  
7 "Within reasonable medical probability,  
8 based on the routine histopathology and the  
9 presence of a mutation in codon 157 of the  
10 p53 gene, which is specific for lung cancer,  
11 this woman's malignancy was a primary  
12 carcinoma of the lung and is not a  
13 metastasis from another organ. Within  
14 reasonable medical probability, based on the  
15 P53 immunostaining, the polymerase chain  
16 reaction amplification gel and the DNA  
17 sequencing which shows the classic G to T

18 transversion in codon 157 of exon 5 of p53  
19 which is associated with tobacco related  
20 lung cancers, this woman's carcinoma of the  
21 lung was caused by exposure to tobacco  
22 smoke.

23 "Diagnosis: Lung autopsy: Primary  
24 carcinoma of the lung. G to T transversion  
25 in codon 157 of exon 5 of p53 indicating  
7907

1 tobacco smoke etiology."

2 Q Thank you, Dr. Porter.

3 Now, my question is, Dr. Porter, after  
4 receiving this report, I believe you  
5 testified that you disagreed with what  
6 Dr. Cagle had to say, so you did not accept  
7 his report. I want you to tell this jury  
8 why you disagreed and why you do not accept  
9 this analysis as being a proper analysis.

10 A Fine. I'd like to say a little something  
11 about P53. It is considered a tumor  
12 suppressor gene, although there are some  
13 very new evidence that would indicate that  
14 it sets up the cell for a suicide program  
15 called epitosis, rather than being a  
16 straight out tumor suppressor. Mutations in  
17 this gene may allow tumors to take hold.  
18 More than half of the large number of  
19 tumors, including lung, pancreas, breast,  
20 bladder, have mutations in P53. So that's a  
21 little bit of background.

22 In looking at some of Dr. Cagle's  
23 deposition, I have worries about a couple of  
24 things. The immunostaining for P53, there  
25 was no mention of a negative control. I  
7908

1 would want that negative control. For the  
2 polymerase chain reaction implication, I  
3 need to explain that just a little bit.  
4 With modern molecular biology, one can turn  
5 one molecule of nucleic acid into a million  
6 in 30 or 40 minutes with specialized enzymes  
7 and techniques. That's what was done here.  
8 And one of these molecules floating around  
9 in the lab or contaminating the tube can  
10 invalidate the examination.

11 During Dr. Cagle's deposition, he was  
12 unable to state whether they had the  
13 appropriate negative controls and a long  
14 range set of contamination controls.

15 So I have -- I have then a problem as  
16 to whether the technology was done exactly  
17 right or not. I simply don't know the  
18 answer.

19 Q Is that your only disagreement or --

20 A That is not necessarily my only  
21 disagreement.

22 Turning then to the Denissenko article,  
23 where they claim that the mutation of codon  
24 157 is cancer, is tobacco smoke lung cancer  
25 specific. I would point out that in lung  
7909

1 cancer the alterations in codon 157 are only  
2 about the fifth most common of the changes.

3 I would also worry about whether that  
4 is a marker for lung origin rather than a  
5 carcinogen origin.  
6 Q So, Doctor, if you assume that what  
7 Dr. Cagle did as far as his testing  
8 methodology was concerned, that he did --  
9 A I cannot assume that.  
10 Q Well, just if you would assume; just assume  
11 that he did the test correctly. Would you  
12 not agree that codon 157 is a hot spot, a  
13 mutational hot spot, for lung cancer?  
14 MR. OHLEMEYER: Asked and answered,  
15 Your Honor. He just answered that question.  
16 THE COURT: You can answer it,  
17 Doctor.  
18 A I already just said that that is the fifth  
19 most common change in lung cancer.  
20 Q So you disagree with the authors of the  
21 Denissenko paper?  
22 A No, I didn't disagree with them.  
23 Q Well, you don't -- you said it was the fifth  
24 most common. Does that mean that it is one  
25 of the hot spots --

7910

1 A Yes.  
2 Q -- for the formation of lung cancer. You do  
3 agree with that?  
4 A Yes.  
5 Q Would you agree that if you find a G to T  
6 transversion at codon 157, exon 5, as  
7 Dr. Cagle found, that would be specific for  
8 lung cancer caused by tobacco smoke which  
9 may contain BaP, benzo(a)pyrene?  
10 A No. I don't agree, because all that -- in  
11 my mind, all that may be doing is marking  
12 the tumor as an origin from lung rather than  
13 from any specific cause.  
14 Q So that, in fact, that test may indicate  
15 that the primary is in the lung as opposed  
16 to anywhere else in the body?  
17 A This is what -- this is one of multiple  
18 possibilities.  
19 Q Are you aware of a P53 abnormality -- a  
20 mutation, a P53 mutation at codon 157 in any  
21 case of pancreatic cancer?  
22 A This exact sort of thing is not -- not my  
23 line of work, although I have some general  
24 familiarity with P53. So, no, I did not run  
25 the databases.

7911

1 Q So you just don't know.  
2 A So I just don't know.  
3 MR. OHLEMEYER: Excuse me, Your  
4 Honor, may we approach?  
5 THE COURT: Yes.  
6 (Bench discussion)  
7 THE COURT: Doctor, we're going to  
8 take about a fifteen-minute break now. You  
9 may step down, sir.  
10 THE WITNESS: Thank you.  
11 (Standard admonition)  
12 MR. CASSELL: All rise.  
13 (A brief recess was taken.)



14 MR. CASSELL: All rise.  
15 THE COURT: Be seated. All right.  
16 The jury back.  
17 Doctor, state your name again for the  
18 record, please.  
19 THE WITNESS: David Dixon Porter.  
20 THE COURT: Thank you.  
21 Mr. Patrick.  
22 MR. PATRICK: Thank you, Your  
23 Honor.  
24 BY MR. PATRICK:  
25 Q Doctor, I asked you last a question about  
7912  
1 codon with 157. Isn't it true that  
2 Dr. Cagle states in his report that he finds  
3 a G to T transversion in codon 157 of exon  
4 5?  
5 MR. OHLEMEYER: Objection, Your  
6 Honor, hearsay. Same objection as before.  
7 THE COURT: All right. Noted.  
8 Overruled.  
9 A Dr. Cagle does state that.  
10 Q All right. Now, are you aware of any  
11 evidence of a G to T transversion at codon  
12 157 exon 5 in a primary pancreatic cancer?  
13 A I have no information on that, so the answer  
14 is no.  
15 Q Now, Doctor, I believe you stated that,  
16 earlier on, that the Rubin Textbook of  
17 Pathology is a pathology textbook that you  
18 generally rely on. It's one of the sources  
19 of reliance?  
20 A That's one of several, yes.  
21 Q Would you turn to page 159 of the Rubin  
22 textbook, please.  
23 A Yes.  
24 Q And under -- on the second column it states  
25 the causes of cancer. Do you see that  
7913  
1 paragraph?  
2 A I do.  
3 Q And first of all, do you know Dr. Rubin,  
4 Emmanuel Rubin?  
5 A Yes, I do.  
6 Q Do you find him to be an authority in the  
7 field of pathology?  
8 A Yes.  
9 Q And in his textbook, the one that he has  
10 authored and edited, if you look in sort of  
11 toward the middle of that paragraph, under  
12 the "Causes of the Cancer," he states, "For  
13 instance, most cancers of the lung are  
14 unquestionably examples of chemical  
15 carcinogenesis by tobacco smoke."  
16 Do you agree with what Dr. Rubin has to  
17 say in that particular paragraph?  
18 A I already expressed my reservations about  
19 that type of a statement, saying before I  
20 would agree with this type of statement,  
21 that I would want to know something about  
22 the mechanism involved.  
23 Q All right.  
24 A I can agree that there is a substantial

25 statistical association between tobacco  
7914  
1 smoke and certain, but not all, of the lung  
2 tumors.  
3 Q All right. Could you turn to page 290,  
4 please, under the heading "Smoking." You  
5 see that? Well, you're not there, I'm  
6 sorry.  
7 A I have that now.  
8 Q And under "Smoking," would you agree with  
9 the statement that "Smoking is the single  
10 largest preventable cause of death in United  
11 States"? Would you agree with Dr. Rubin's  
12 statement? And that's based on the  
13 statistical relationship between cigarette  
14 smoking and disease.  
15 A I think that's probably correct.  
16 Q And would you also agree that about 350,000  
17 deaths a year, one-sixth of the total  
18 mortality in the United States, occur  
19 prematurely because of smoking?  
20 A The number may be a little bit high by my  
21 reading but, yes, in a general sense, I  
22 would agree with that. I'd go more with a  
23 figure of 290,000.  
24 Q All right. And if you look over on to the  
25 next page, the first paragraph, under the  
7915  
1 sentence beginning with "in fact," and he  
2 states, "In fact, the mortality from cancer  
3 of the lung, almost all of which is related  
4 to cigarette smoking, has now exceeded that  
5 from cancer of the breast as the most common  
6 cause of death from malignant neoplasms in  
7 women in the United States."  
8 Do you see that?  
9 A I didn't find that.  
10 Q I'm sorry.  
11 A I'm lost.  
12 Q Page 291, turn to the left-hand column,  
13 second full sentence, beginning with "in  
14 fact."  
15 A I see that.  
16 Q So Dr. Rubin states that mortality from  
17 cancer of the lung is the most common cause  
18 of death in the United States among women at  
19 this point.  
20 A I'm not sure of the statistics.  
21 Q Do you agree or disagree?  
22 A Simply unsure, because I keep also in my  
23 mind that between 1 and 8 and 1 and 10 women  
24 develop breast cancer, so I don't know the  
25 numbers behind this quite well enough.  
7916  
1 Q In Mrs. Wiley's case, I believe you stated  
2 that it was less likely that she had breast  
3 cancer; correct?  
4 A Very much less likely.  
5 Q And that -- would you agree that lung cancer  
6 in women is five times more common than  
7 pancreatic cancer in women, as a general  
8 rule?  
9 A You're leaving out a very important part of

10 the equation, and that is whether they  
11 directly smoke or they don't.  
12 Q No. I'm just saying that if you look -- if  
13 you just look at all of the cases of lung  
14 cancer --  
15 A If you take this one statement in isolation,  
16 it's correct.  
17 Q And if you'll turn to page 296. And as a  
18 general rule, this is under "Passive  
19 Smoking," he states, "The risk of lung  
20 cancer in adults exposed to environmental  
21 tobacco smoke is not precisely known but has  
22 been reported to be increased by up to  
23 twofold."  
24 Do you have any reason to dispute  
25 Dr. Rubin's statement?

7917

1 A I have seen some other figures that the  
2 number may be a risk of 1.2 to 1.4 rather  
3 than twofold, so I think Rubin is probably  
4 high.  
5 Q Dr. Porter, we're almost done. Let me just  
6 ask you: You're a cigarette smoker, and  
7 you've acknowledged that. Do you know what  
8 additives are in Marlboros?  
9 MR. OHLEMEYER: Objection, Your  
10 Honor, relevance, beyond the scope of the  
11 witness' direct.  
12 THE COURT: Sustained.  
13 Q I believe you told us at your deposition  
14 that when you do smoke, that you're not  
15 allowed, or your wife doesn't allow you to  
16 smoke in the house.  
17 A That is correct.  
18 Q And I believe you can't smoke at UCLA  
19 because there's a smoke-free environment in  
20 your office; correct?  
21 A That is correct.  
22 Q So UCLA doesn't allow smoking and neither  
23 does Mrs. Porter allow smoking; correct?  
24 A Correct.  
25 Q And you did tell us at your deposition on

7918

1 this issue of cause that you do believe that  
2 cigarette smoking is a cause of emphysema;  
3 correct?  
4 A I do.

5 MR. PATRICK: Dr. Porter, thank  
6 you. I don't have any further questions at  
7 this time.

8 THE COURT: Any redirect,  
9 Counselor?

10 MR. OHLEMEYER: Yes, Your Honor.

11 REDIRECT EXAMINATION

12 BY MR. OHLEMEYER:

13 Q Dr. Porter, when you teach medical students  
14 or pathologists -- medical students who want  
15 to be pathologists, do you teach them how to  
16 form opinions or how to assemble information  
17 and form or create a diagnosis?  
18 A First I have a little bit of trouble there  
19 because I don't know which medical students  
20 want to become pathologists. All the

21 medical students are required to take the  
22 pathology courses.  
23 Yes, I do teach them how to think  
24 critically about data and information.  
25 Q And do you challenge their opinions,

7919

1 critically?  
2 A Yes, I do.  
3 Q Are you familiar with a phrase called  
4 defending a diagnosis?  
5 A Absolutely.  
6 Q What does that mean?  
7 A That means you have to give detailed  
8 reasoning as to why you want to make such  
9 and such a diagnosis.  
10 Q And as part of your training, were you  
11 taught to defend your diagnosis?  
12 A Absolutely.  
13 Q And is part of what you teach medical  
14 students the idea that they need to be able  
15 to defend their diagnosis?  
16 A That is correct.  
17 Q And do you challenge them orally to explain  
18 why and how they've come to certain  
19 conclusions?  
20 A At length.  
21 Q And, in essence, that's what you've been  
22 doing here most of the afternoon, is  
23 defending your diagnosis?  
24 A That is correct.  
25 Q Now, do you know whether the plaintiffs

7920

1 brought Dr. Cagle into court to sit in that  
2 chair and defend his diagnosis?  
3 A I have no idea who has testified here except  
4 myself.  
5 Q Doctor, am I correct, UCLA is a fairly large  
6 medical school as compared to others in the  
7 country?  
8 A Yes, it's relatively large. We have  
9 approximately 175 medical students per  
10 class, about 100 dental students per class.  
11 Our hospital is licensed for 740 beds,  
12 although we typically operate only around  
13 550. Yes, so we have an extremely large  
14 enterprise. We own Santa Monica Hospital,  
15 have associations with additional ones, and  
16 run four county hospitals as well.  
17 Q How many -- in your 30 years, plus or minus,  
18 at UCLA, how many pathologists have you  
19 worked with?  
20 A As I noted, that we have close to 180. With  
21 a current association with UCLA, I would  
22 suppose over my time that I've had to deal  
23 with 1,000 pathologists. That's 8 percent  
24 of the national total.  
25 Q Does that include pathologists whom you've

7921

1 taught or instructed?  
2 A Yes.  
3 Q What percentage of those pathologists that  
4 you've worked with over your 30 years, plus  
5 or minus, at UCLA, have either conducted or

6 reviewed as many autopsies as you have?  
7 A No one else.  
8 Q And, Doctor, is there a difference in your  
9 field between research interests and  
10 practical experience?  
11 A Absolutely, yes. For my clinical work, I do  
12 my assigned work which has been autopsy  
13 pathology over the decades. The research is  
14 only required to be creative and need not  
15 necessarily be allied with your clinical  
16 work.  
17 Q So the fact that you have a research  
18 interest in one area doesn't mean you are  
19 inexperienced in other areas.  
20 A No.  
21 Q Doctor, let me ask you about professional  
22 societies you've been involved with. Have  
23 you been involved in societies of  
24 pathologists?  
25 A Yes. Yes, I have. Particularly with

7922

1 respect to experimental pathology, the  
2 American Society of Investigative Pathology,  
3 which has had about five names over my  
4 period of 32 years of membership; the  
5 American Society for Microbiology, a very  
6 small one called the Pluto Club that was 35,  
7 now it's 50 members from all over North  
8 America that is for the people who do  
9 experimental work. You get elected young,  
10 and you get made emeritus and asked to go  
11 away when you're fifty. New York Academy of  
12 Sciences, American Association for the  
13 Advancement of Sciences, and others.

14 Q In all of your professional societies and  
15 your professional dealings, have you ever  
16 met a pathologist who has either conducted  
17 or reviewed as many autopsy cases as you  
18 have?

19 A No, but some of the old German and Austrian  
20 pathologists have conducted and reviewed  
21 more than I have, but I'm not aware of  
22 anybody currently.

23 Q Doctor, let me refer again to Defendants'  
24 Exhibit B1. This is a photograph of an  
25 actual pathology slide that you looked under

7923

1 the microscope; right?

2 A That is correct.

3 Q There's no doubt in your mind this is a  
4 tumor.

5 A That is correct.

6 Q There's no doubt in your mind it's a  
7 cancerous tumor?

8 A That's correct.

9 Q There's no doubt in your mind that this is a  
10 tumor that was not found in the head of the  
11 pancreas?

12 A I am somewhat uncertain of where it was. I  
13 saw the diameter of the pancreas at that  
14 point, which was about like so (indicating),  
15 about -- just about an inch, and it looked  
16 like the periphery of the pancreas around

17 it, so that would have had to have been from  
18 the body or the tail. It could not have  
19 been from the head or they would have had to  
20 slice it.

21 Q Was this tumor in a place in the pancreas  
22 where you would expect to find a tumor that  
23 had started in the lung and spread to the  
24 pancreas?

25 A No, it was not.

7924

1 Q And, Doctor, in the 200 or so cases of  
2 primary pancreatic cancer that you observed,  
3 have you ever seen one metastasize to the  
4 pancreas from the lung? I guess that's a  
5 not --

6 A That's two questions.

7 Q In your experience, have you ever seen a  
8 primary adenocarcinoma of the lung  
9 metastasize to the pancreas?

10 A No, I have not.

11 Q Doctor, referring to the letter that  
12 Mr. Patrick gave to you from Dr. Winkler.

13 A I have that in front of me.

14 Q And then let me hand you a copy of the  
15 pathology report. You've seen that, the  
16 autopsy report, in this case; right?

17 A Yes.

18 Q See the No. 32-91?

19 A I do.

20 Q See the reference to 32-91 in this Winkler?

21 A I do.

22 Q It appears that what Dr. Winkler was given  
23 to review was a copy of the autopsy report;  
24 right?

25 A I have no way to know.

7925

1 Q Let me ask you if Dr. Winkler was only  
2 provided with the autopsy report, he  
3 wouldn't have had all the information about  
4 Mrs. Wiley that could have been obtained  
5 from autopsy, would he?

6 A No.

7 Q And that's because there was a mistake in  
8 the autopsy report, wasn't there?

9 A There was.

10 Q And that was a mistake that was identified  
11 by you as early as November of 1995?

12 A That's the correct date.

13 Q And that was an omission of the tumor that  
14 was in the pancreas that was observed on the  
15 microscopic portion of the report; right?

16 A Correct.

17 Q And Dr. Kocoshis, the pathologist who did  
18 the autopsy, agreed when he was deposed a  
19 few months ago, that that is something that  
20 should have been contained in the autopsy  
21 report.

22 A Yes.

23 Q Now -- so the pathologist who actually did  
24 the autopsy observed the same type of tumor  
25 in the pancreas that you did.

7926

1 A Apparently, after I did.

2 Q And there's just a disagreement among the  
3 two of you as to where it might have  
4 started?  
5 A Yes.  
6 Q And do pathologists from time to time  
7 disagree with each other about things like  
8 that?  
9 A Absolutely.  
10 Q Doctor, let me also ask you about the  
11 exhibit that the plaintiffs gave you, this  
12 chest X-ray. You have that? There you go.  
13 A The one from the Biloxi.  
14 Q Correct. Is a diagnostic impression of  
15 possible early pneumonia the same thing as  
16 cancer?  
17 A No, it is not.  
18 Q Does it even suggest a diagnosis of cancer?  
19 A It does not.  
20 Q Turn over to the next page where it says  
21 radiology report on the bottom. You see  
22 that page?  
23 A I'm getting there. It says "Conclusion:  
24 Normal study."  
25 Q What does that mean?

7927

1 A An acute infiltrate is not present in the  
2 chest. It means that they didn't see  
3 anything.  
4 Q Anything that would be identified or  
5 described as cancer?  
6 A They didn't see any lesion.  
7 Q Lesion being what?  
8 A Lesion being the middle lobe density that  
9 might be pneumonia that Mr. Patrick said  
10 could be the cancer. There the radiologist  
11 said nothing there. They said there was a  
12 calcification on the other side of the upper  
13 lobe that appeared to be a granuloma.  
14 Q What's a granuloma?  
15 A The granuloma is a walled off lesion. It  
16 can be caused by a number of things;  
17 commonest would be tuberculosis, histoplasma  
18 or in California, coccidioidomycosis.  
19 That's a type of inflammatory lesion. And  
20 incidentally, TB and that type of lesion can  
21 reactivate later in life.  
22 Q Are granulomas believed to be scars or  
23 similar to scars?  
24 A They are a type of scar. They're small,  
25 usually.

7928

1 Q Are adenocarcinomas sometimes associated  
2 with scars?  
3 A Yes, but not the type of a scar that I would  
4 expect in a granuloma.  
5 Q So long story short, so there's no  
6 misunderstanding what this chest X-ray --  
7 this is not a chest X-ray that demonstrates  
8 cancer.  
9 A That is correct.  
10 Q And do you know whether there were  
11 subsequent chest X-rays done after this one  
12 that did not demonstrate anything that even

13 looked like pneumonia?  
14 A I can't remember at this time.  
15 Q Finally, Dr. Porter, am I correct that for  
16 many years researchers and doctors have  
17 recognized that occult, extrathoracic  
18 malignancies, cancers that start somewhere  
19 outside the chest, but that can't be found,  
20 have been recognized to simulate cancer that  
21 begins in the lung?  
22 A Yes.  
23 Q And pancreatic cancer has been reported to  
24 be the most frequent cancer that simulates  
25 or imitates cancer that begins in the lung?

7929

1 A That's correct.  
2 MR. OHLEMEYER: Thank you,  
3 Dr. Porter. Those are all my questions.  
4 THE COURT: Recross, Mr. Patrick?  
5 MR. PATRICK: Yes, Your Honor.  
6 Just a few.

7 RE CROSS-EXAMINATION

8 BY MR. PATRICK:

9 Q Doctor, Mr. Ohlemeyer made some reference to  
10 an error that was in the autopsy report; do  
11 you recall that?  
12 A Okay. In the general sense.  
13 Q The error was, is that the pathologist,  
14 Dr. Kocoshis, stated that there was cancer  
15 in the peripancreatic lymph node when, in  
16 fact, on when he reexamined the tissue from  
17 the pancreas, he found pancreatic cancer,  
18 some cancer in the pancreas; isn't that  
19 correct?  
20 A That's correct.  
21 Q And that was pointed out to him. First of  
22 all, you have reviewed the deposition of  
23 Dr. Kocoshis, the pathologist in this case,  
24 have you not?  
25 A I have.

7930

1 Q And he was made aware, in fact, testified to  
2 the fact that there was an error made in the  
3 autopsy report at the time of his  
4 deposition, did he not? Do you recall that  
5 discussion?  
6 A Yes.  
7 Q And despite the fact that Dr. Kocoshis  
8 realized that there may be some tumor in the  
9 pancreas and it was not a peripancreatic  
10 lymph node that had tumor in it, he still  
11 was of the opinion, was he not, that this  
12 was a primary lung cancer that had  
13 metastasized to the pancreas?  
14 A Correct.  
15 Q Now, there was -- Mr. Ohlemeyer asked you a  
16 question about this letter from Dr. Winkler  
17 to Dr. Turner in reviewing the autopsy  
18 report. Isn't it true that the letter  
19 indicates that not only did he review the  
20 autopsy, but that he also reviewed the  
21 accompanying patient's radiographs as well?  
22 A Yes, he did, but it is not clear whether he  
23 reviewed the slides or he didn't review the



24 slides. There's simply no information. I  
25 don't know what he had.

7931

1 Q And in 1986, the doctor in Biloxi,  
2 Mississippi, saw that there was a density in  
3 the middle lobe of the right lung. You  
4 recall that?

5 A I see it on the front page of it. On the  
6 radiologist's report, which is the third  
7 page of what I was handed here, it says  
8 there wasn't anything, so I don't know.

9 Q So the diagnosis of lung cancer was not made  
10 in 1986; correct?

11 A Correct.

12 Q In fact -- well, there was a suggestion that  
13 there might be something in the middle lobe  
14 of the right lung, just a suggestion.

15 A Yes.

16 Q Do you know -- well, you may not be able to  
17 recall. There were no chest X-rays done  
18 between 1986 and 1991, is that correct, or  
19 do you know?

20 A I don't recall that.

21 Q Okay.

22 MR. PATRICK: Thank you,  
23 Dr. Porter. No further questions.

24 THE COURT: Thank you very much,  
25 Doctor. We appreciate you coming to

7932

1 Indiana.

2 THE WITNESS: Thank you.

3 THE COURT: Have a good trip back.

4 MR. MOTLEY: Your Honor, may I  
5 approach with a matter with counsel before  
6 the next witness?

7 THE COURT: Yes.

8 MR. OHLEMEYER: Thank you, Doctor.  
9 (Bench discussion)

10 THE COURT: Defendants ready to  
11 call your next?

12 MR. WAGNER: Yes, we are, Your  
13 Honor. Defense calls Dr. Townsend.

14 THE COURT: All right.

15 MR. MOTLEY: You asked us for a  
16 proposed instruction about warning labels?

17 (Bench discussion)

18 THE COURT: Would you raise your  
19 right hand.

20 DEFENDANTS' WITNESS, DAVID TOWNSEND, SWORN

21 THE COURT: Have a seat right  
22 there, would you, please.

23 Would you tell this jury your name.

24 THE WITNESS: Yes, Your Honor. My  
25 name is David Townsend.

7933

1 THE COURT: Spell your last.

2 THE WITNESS: T-O-W-N-S-E-N-D.

3 THE COURT: Thank you.

4 Mr. Wagner.

5 MR. WAGNER: Thank you, Your Honor.

6 DIRECT EXAMINATION,

7 BY MR. WAGNER:

8 Q Good afternoon, Dr. Townsend.

9 A Good afternoon.  
10 Q Will you tell the jury, please, where you  
11 live.  
12 A Yes, sir. I currently live at 4801 Gladwin  
13 Drive in Winston-Salem, North Carolina.  
14 Q Have you lived down there almost all your  
15 life?  
16 A Well, I've moved around a lot. I actually  
17 was born in Kansas City, spent most of my  
18 childhood in Charlotte. Lived in  
19 Philadelphia, New Jersey, Georgia, in  
20 between and after college. About 20 years  
21 ago moved to Winston-Salem.  
22 Q Are you married and have children?  
23 A I am married, have two daughters.  
24 Q Tell the jury, please, where you are  
25 employed.

7934

1 A I'm currently employed with RJ Reynolds  
2 Tobacco Company.  
3 Q And what is your current position?  
4 A Presently I'm vice president of product  
5 development and assessment.  
6 Q And tell us how long you've been employed by  
7 Reynolds.  
8 A I've been with Reynolds since October of  
9 1977, so it's a little more than 20 years.  
10 Q And of those 20 years, have you always been  
11 involved in the research, development and  
12 design of cigarettes?  
13 A Throughout that full 20 years, I've been  
14 involved in cigarette design in one aspect  
15 or another, from basic research on  
16 cigarettes and how cigarettes work, all the  
17 way to the very applied product development  
18 efforts.  
19 Q I believe it's correct, isn't it, that  
20 you're trained in physical organic  
21 chemistry?  
22 A That's correct. I have degrees in physical  
23 organic chemistry. I am a chemist.  
24 Q In fact, you hold both a master's and a  
25 Ph.D. in physical and organic chemistry; is

7935

1 that correct?  
2 A That's correct.  
3 Q Doctor, just to give the jury a little  
4 preview, you're here to provide the jury  
5 with your expert opinions on matters related  
6 to cigarette design; is that correct?  
7 A That's correct.  
8 Q And that includes your opinion on whether  
9 Reynolds and the other tobacco companies  
10 have provided consumers with a range of  
11 products that address health claims made  
12 about cigarette smoking over the last 40  
13 years?  
14 A That's correct also.  
15 Q And also, your opinion on whether anyone  
16 other than the United States tobacco  
17 companies has developed feasible alternative  
18 designs superior to those that were  
19 developed by Reynolds and its competitors;

20 correct?  
21 A That's correct, too.  
22 Q And finally, Doctor, you've also been asked  
23 to provide your expert opinion on whether  
24 Reynolds and the other cigarette  
25 manufacturers have developed and marketed

7936

1 cigarettes that address allegations about  
2 environmental tobacco smoke; is that  
3 correct?

4 A Yes, sir.

5 Q And are you prepared to provide those  
6 opinions today?

7 A I am.

8 Q Okay. Before we get into those, I want to  
9 get a little bit into your background. Tell  
10 us what your educational background has been  
11 beginning with college.

12 A Well, I attended undergraduate school at the  
13 University of North Carolina at Chapel Hill.  
14 Studied chemistry and received a Bachelor of  
15 Science Degree in Chemistry. From there I  
16 went to Florida State University, received a  
17 Master of Science Degree in Physical Organic  
18 Chemistry and a Ph.D. Degree in Physical  
19 Organic Chemistry as well. Most of the work  
20 in graduate school was in the area of  
21 reaction mechanisms of organic  
22 photochemistry.

23 Q What year did you get your doctorate in  
24 physical organic chemistry?

25 A 1974.

7937

1 Q And tell us, please, what is physical  
2 organic chemistry?

3 A Well, physical organic chemistry is actually  
4 a mixture between organic chemistry, which  
5 is the study of organic molecules. Organic  
6 molecules are those that contain carbon and  
7 usually hydrogen as well. Physical  
8 chemistry is the study of physical aspects  
9 of reactions and -- well, it's the physical  
10 aspects of chemistry, really. And so  
11 physical organic chemistry brings those two  
12 together, so a physical organic chemist  
13 would study physical aspects of organic  
14 molecules. For example, how size and shape  
15 of organic molecules may affect reaction  
16 rate and the like.

17 Q During the time that you were pursuing your  
18 graduate studies at Florida State, did you  
19 have any research that was published?

20 A I did. I had a number of articles  
21 published.

22 Q And where were those published?

23 A Well, they were published in a number of  
24 peer-reviewed journals, including the  
25 American Chemical Society Journal, Journal

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1 of the American Chemical Society, Chemical  
2 Physics Letters, Chemical Communications and  
3 others.

4 Q Is the Journal of the American Chemical

5 Society a peer-reviewed publication?  
6 A It is, yes.  
7 Q And after you were awarded your doctorate  
8 from Florida State, what did you do? What  
9 was your first job?  
10 A After I left Florida State, I accepted a  
11 position at Roman Haas Chemical Company in  
12 Philadelphia. I stayed there for  
13 approximately three years.  
14 Q What kind of work did you do there?  
15 A Actually, I enjoyed my work there. It was  
16 working in process research. We worked with  
17 developing monomers, and monomers are the  
18 precursors to polymers.  
19 And Roman Haas, the company I worked  
20 for, makes Plexiglas. So part of my job was  
21 figuring out better ways and more efficient  
22 ways to manufacture the monomers, the basic  
23 building blocks, of Plexiglas, car finishes  
24 and other coatings.  
25 Q What was your next job?

7939

1 A I left Roman Haas in 1977 and went straight  
2 to RJ Reynolds Tobacco Company in  
3 Winston-Salem.  
4 Q You said you've been employed there, I  
5 guess, about 21 years now; is that right?  
6 A Well, 21 years in October.  
7 Q In October. What is your present title, or  
8 what was your title and first position at  
9 Reynolds when you joined?  
10 A My first position?  
11 Q Yes.  
12 A The first position when I started at RJ  
13 Reynolds was as a senior R & D chemist.  
14 Q Basically what did you do in that position?  
15 A Most of my job was to plan and conduct basic  
16 research in the area of cigarette design,  
17 particularly focused on filters and how  
18 filters work, looked at what we call  
19 selective filtration, as well as cigarette  
20 paper properties and how that affects the  
21 burning cigarette. There are a number of  
22 areas, but that pretty much summarizes it.  
23 Q What is your current title?  
24 A Right now I'm vice president of product  
25 development and assessment.

7940

1 Q And tell us what your duties are in that  
2 position.  
3 A My present duties are, I have responsibility  
4 for product development for RJ Reynolds  
5 Tobacco Company, particularly focusing on  
6 new product development, but also looking at  
7 current product improvements.  
8 I also have responsibility, and that's  
9 why it's also called assessment, I have  
10 responsibility for all analytical chemistry  
11 research for the company and all analytical  
12 chemical chemistry support for RJ Reynolds  
13 Tobacco Company.  
14 Q Tell us again, during the almost 21 years  
15 you've been at Reynolds, how much of that

16 time have you been involved in cigarette  
17 design issues?  
18 A Throughout my entire career at Reynolds,  
19 I've been involved in cigarette design in  
20 one form or another, either in the basic  
21 research or in applied product development.  
22 Q And have you continued to publish articles  
23 since you've been with Reynolds?  
24 A I've published a few. Most of my work is  
25 proprietary and is not published as a result

7941

1 of being highly competitively sensitive.  
2 But I have published a few, and I've  
3 presented a few papers as well.  
4 Q You have lectured as well on various topics  
5 during your employment with Reynolds; would  
6 that be true?  
7 A Yes, yes. I've presented papers, not only  
8 within Reynolds, but on occasion outside of  
9 Reynolds at scientific meetings as well.  
10 Q I've got a list of the ones that you had  
11 published or presented. I'm not going to  
12 read them all, but just to give the jury an  
13 idea, you presented a paper entitled, "The  
14 Effects of Cigarette Paper Permeability and  
15 Air Dilution on Carbon Monoxide Production  
16 and Diffusion From the Tobacco Rod";  
17 correct?  
18 A That's correct. I believe that was a paper  
19 I presented at the Tobacco Chemists Research  
20 conference and also at a CORESTA meeting,  
21 which is an international scientific  
22 organization.  
23 Q Just another example would be one you wrote  
24 that's entitled, "The Effect of Tobacco  
25 Moisture on the Removal of Cigarette Smoke

7942

1 by the Tobacco Rod"; correct?  
2 A That's correct. I also presented that at  
3 CORESTA research conference.  
4 Q One more example, "Processes Occurring in a  
5 Burning Cigarette"; right?  
6 A That's correct. That was a summary  
7 presentation that I gave. It was an invited  
8 lecture, actually, at the research and  
9 development headquarters at Kimberly Clark  
10 Corporation.  
11 Q And, Doctor, you hold three patents;  
12 correct?  
13 A That's correct.  
14 Q And to what do they relate? What subject?  
15 A All three relate to cigarette design.  
16 Q Tell us about the professional organizations  
17 that you belong to.  
18 A Currently I belong to two professional  
19 organizations. The American Chemical  
20 Society, which is the premier organization  
21 for chemists in the United States. I also  
22 belong to the Combustion Institute, which is  
23 a specialized organization where scientists  
24 dealing in combustion systems can come  
25 together, share their work, and also enter

7943

1 into scientific exchange. The Combustion  
2 Institute includes scientists like cold  
3 combustion researchers, automobile  
4 combustion researchers, and the like.

5 Q And are you on the scientific commission of  
6 CORESTA?

7 A I'm very active in CORESTA.

8 Q Tell us, first of all, what is CORESTA?

9 A Maybe I should tell you what that is.  
10 CORESTA is a scientific organization. It's  
11 an international organization, which allows  
12 for the exchange of science among tobacco  
13 researchers, so it's an international  
14 organization that includes tobacco  
15 researchers from around the world, as well  
16 as from allied industries like paper  
17 suppliers, filter suppliers, and also some  
18 members like American Health Foundation  
19 participate from time to time.

20 I am involved in CORESTA, and I  
21 think -- I guess your original question was,  
22 how am I involved?

23 Q Yes. I was just asking you to tell the jury  
24 a little bit about some of the professional  
25 organizations that you belong to and --

7944

1 A Okay.

2 Q And CORESTA would be one of those?

3 A Well, presently in CORESTA I'm the president  
4 of the technology group, and the technology  
5 group is one of four major divisions of  
6 CORESTA. We focus on the technology of  
7 cigarette materials, test methodologies for  
8 cigarettes, and a variety of other things,  
9 including processing.

10 I'm also vice president of the  
11 scientific commission, which is the group of  
12 scientists who direct the scientific  
13 activities of CORESTA, because CORESTA  
14 undertakes its own scientific endeavors, for  
15 example, developing standardized test  
16 methods for use in the tobacco industry  
17 around the world.

18 I'm also currently chairman of a task  
19 force, and that task force has as its main  
20 objective to develop a standardized valid  
21 test method for cigarette ignition  
22 propensity.

23 So I really have three functions within  
24 CORESTA, in addition to attending scientific  
25 meetings.

7945

1 Q How about your service on governmental task  
2 force or similar groups; can you tell us  
3 what some of those have been?

4 A I've been involved in several. I guess the  
5 first was what I'll call the technical study  
6 group. It was a technical group put together  
7 by Congress for the 1993 Cigarette Fire  
8 Safety Act. That Cigarette Fire Safety Act  
9 called together a number of scientists from  
10 the government and from industry and from  
11 the fire service to try to determine if it's

12 feasible to develop reduced ignition  
13 propensity cigarettes.

14 There was a second government task  
15 force that I participated on, and that was  
16 the technical advisory group, also a group  
17 created by Congress, this time in 1990. And  
18 that function was for these scientists to  
19 advise the National Institute of Standards  
20 and Technology, which also used to be called  
21 National Bureau of Standards; and also  
22 advise the Consumer Product Safety  
23 Commission in accomplishing a number of  
24 tasks related to cigarette fire safety.

25 I've also participated on the National  
7946

1 Cancer Institute panel which was charged --  
2 given the charge of looking at the FTC, or  
3 Federal Trade Commission, smoking method.  
4 That was in 1994, I believe. And then in  
5 1996, I was asked to be a technical member  
6 of a Canadian expert panel on cigarette  
7 modification, which was held in Toronto.

8 Q We're going to be talking about cigarette  
9 design during your testimony, Doctor. Did  
10 your education in physical organic chemistry  
11 prepare you to deal with cigarette design,  
12 and if so, can you tell the jury how?

13 A Well, I believe it did very much. In  
14 cigarette design, one has to worry about  
15 interaction of a number of physical  
16 variables. One has to also try to  
17 understand the combustion process as much as  
18 possible. I think my education gave me the  
19 tools to, first of all, design, plan,  
20 conduct good research.

21 The second thing it did was it gave me  
22 some of the mathematical tools and chemical  
23 tools that I need to be able to interpret  
24 and understand what all that means. So I  
25 think it very directly gave me what I need

7947

1 to do the work in cigarette design.

2 Q Can you describe for us some of the, at  
3 least, broad areas of the kinds of cigarette  
4 design research activities that you've  
5 engaged in?

6 A Over my 20 years?

7 Q Yes, sir.

8 A Well, that's kind a broad -- broad question,  
9 but I'd say if I start out on the basic  
10 research end, a lot of my research is  
11 focused on filters and how filters actually  
12 remove smoke; looking at selected  
13 filtration, how filters can possibly remove  
14 certain compounds or constituents from  
15 smoke, how all of that interacts with a  
16 variable that we call air dilution, which  
17 has a great effect on overall smoke  
18 deliveries. Looking at paper permeability,  
19 we've also done basic research in the area  
20 of combustion, trying to understand how  
21 smoke is formed at the burning end of the  
22 cigarette.

23 And now let me switch over to some of  
24 the applied product development work. We've  
25 had a number of direct efforts to try to put

7948

1 all this together to design entire  
2 cigarette, or prepare entire cigarette  
3 designs for the commercial market that give  
4 overall reductions, major reductions in tar  
5 and nicotine yields, as well as trying to  
6 selectively reduce a variety of constituents  
7 in the smoke.

8 Q And during the over 20 years that you've  
9 been at Reynolds, have you continued to be  
10 trained in and to be additionally educated  
11 in your field?

12 A Well, I think it's on-the-job training,  
13 frankly. I think as one gets into this kind  
14 of job, one learns more on a daily basis. I  
15 think that's important not only to advance  
16 the technology and the science, but it's  
17 important to keep up with changes.

18 Q Have you taught courses in cigarette design?

19 A I have. A number of years ago I put  
20 together a cigarette design course that I  
21 used internal to Reynolds to teach new  
22 employees, and even some of the older  
23 employees at Reynolds, about cigarette  
24 design. Because it turns out that many  
25 people in research and development have

7949

1 their own specialty, and they stay very  
2 narrowly focused in that specialty, so this  
3 was an attempt to give them a broader review  
4 of cigarette design.

5 I taught that course for a number of  
6 years. Right now I'm not teaching it. In  
7 fact, I've asked one of my staff members to  
8 put together an updated version of that.

9 Q Now, as part of your work at Reynolds, have  
10 you had to become familiar with things that  
11 took place at Reynolds in the field of  
12 cigarette design prior to the time that you  
13 began your employment there?

14 A Oh, of course. I think that's the job of  
15 any scientist, is to learn what's gone on  
16 before. One has to learn from the mistakes  
17 and the successes, and build on that, pick  
18 apart of the conclusions that people have  
19 drawn based on the research that's been  
20 conducted, and one needs to really  
21 understand that as much as possible and then  
22 apply that to new experiments that need to  
23 be conducted.

24 Q And as part of what you do, have you become  
25 familiar with the literature relating to

7950

1 smoking and health?

2 A Well, I'm not an expert in the area of  
3 smoking and health. I'm a chemist. But to  
4 do my job, I've had to become somewhat  
5 familiar with at least some aspects of  
6 smoking and health literature.

7 Q Can you tell us, please, just generally



8 again, what role the scientific literature  
9 in the area of smoking and health has played  
10 in cigarette design efforts at Reynolds over  
11 the years.

12 A Smoking and health literature in the  
13 scientific community has played a major and  
14 a direct role in cigarette design at RJ  
15 Reynolds and also, I believe, with my  
16 competitors here in the U.S. It's given --  
17 the scientific literature in smoking and  
18 health has given us a number of theories,  
19 hypotheses that we can look at and try to  
20 develop cigarette designs that directly  
21 address those smoking and health hypotheses  
22 or theories.

23 Q And why has Reynolds addressed those  
24 theories and health concerns?

25 A Well, I think the reason, in my opinion, is  
7951

1 really quite clear. Cigarette smoking is a  
2 risk factor for a number of diseases,  
3 including lung cancer. If one -- and to me,  
4 what that means is that cigarette smokers as  
5 a group certainly have a higher incidence of  
6 those diseases. There's no question about  
7 it.

8 And so if one -- if one then  
9 understands that cigarette smoking is a risk  
10 factor, it's the right thing to do to try to  
11 see and examine and understand the theories  
12 that are placed on the table for why that  
13 may be the case, and try to see if it's  
14 entirely possible at all to address those  
15 theories through cigarette design.

16 Q And is there some impetus to do that also  
17 because of what your competitors are doing  
18 in that area, too?

19 A Well, it's a very competitive industry;  
20 extremely so. And I think if we're  
21 successful at RJ Reynolds developing  
22 cigarettes that respond to the smoking and  
23 health issues and are consumer acceptable  
24 and do well in the marketplace, I think that  
25 gives us a competitive advantage. No

7952

1 question about it.

2 Q Have you had to become familiar with the  
3 cigarette design efforts of your competitors  
4 here in the United States?

5 A Well, of course. Again, this is a very  
6 competitive industry. And I think me and my  
7 staff as well spend a fair amount of time  
8 trying to understand what the competition is  
9 up to, and we try to do that through  
10 watching the publications and the patents,  
11 we attend meetings where they present  
12 scientific work. We also try to re-engineer  
13 or to dissect their products that we get off  
14 the market and try to understand how they  
15 built their products. So I think there are  
16 a variety of ways.

17 Q Tell us, please, you've previously been  
18 recognized as an expert by other courts;

19 isn't that true?  
20 A That's correct.  
21 Q And can you tell us in what cases that has  
22 been the case?  
23 A Yes. I was recognized as an expert in  
24 cigarette design first in Cooper, which was  
25 a trial in Illinois, in 196 -- I'm sorry,  
7953  
1 1993. It was January of '93, I believe,  
2 that I was in court. Then in Indianapolis,  
3 in a trial called Rogers. I believe that  
4 was 1996. Then in 1997 Connor in  
5 Jacksonville, Florida; Broin in Miami,  
6 Florida; and then also Crebonic (phonetic)  
7 in Jacksonville, Florida, so five trials.  
8 Q Let me ask you now about your opinions that  
9 you can express in this case, Doctor. Based  
10 on your education, your training, and your  
11 experience, do you have an opinion on  
12 whether RJ Reynolds Tobacco Company and the  
13 other cigarette manufacturers in the United  
14 States have provided consumers with  
15 cigarettes with products that address health  
16 claims raised about cigarette smoking over  
17 the past 40 years?  
18 A I do.  
19 Q And what is that opinion?  
20 A My opinion is that RJ Reynolds in  
21 particular, in the U.S. industry, has  
22 provided a range of products to consumers,  
23 and those range of products directly address  
24 the smoking and health issues.  
25 Q And do you have an opinion about the quality  
7954  
1 of Reynolds' research efforts over the past  
2 40 years, those not only Reynolds, but also  
3 its competitors' efforts in the past 40  
4 years?  
5 A I do have an opinion.  
6 Q And what is that opinion?  
7 A My opinion is -- and, of course, I have a  
8 firsthand understanding of Reynolds; I have  
9 some understanding of my competitors. At  
10 Reynolds, I believe that we have a first  
11 rate research effort. I think we've  
12 overturned all the rocks and tried to  
13 understand as much as we can and actually  
14 implement what we understand in the  
15 marketplace as much as possible. I think  
16 it's a first class effort.  
17 Q And, Doctor, do you have an opinion as to  
18 whether the cigarettes manufactured and sold  
19 by Reynolds and the other cigarette  
20 manufacturers during that period of time  
21 conform to the generally recognized state of  
22 the art?  
23 A Yes, I do.  
24 Q What is that opinion?  
25 A My opinion is that in any point in time  
7955  
1 cigarette design modifications have been  
2 implemented in the marketplace, and at any  
3 point in time the state of the art is

4 present in the marketplace.  
5 Q And do you have an opinion on whether  
6 anyone, other than Reynolds and the  
7 manufacturers of cigarettes in the United  
8 States, has developed a superior alternative  
9 design for cigarettes that address health  
10 claims raised about cigarette smoking during  
11 that 40-year period?  
12 A I do.  
13 Q And what is that opinion?  
14 A My opinion is that all of the innovations in  
15 cigarette design have come from the U.S.  
16 manufacturers and no better designs have  
17 come from outside of the United States  
18 tobacco manufacturers.  
19 Q And then finally, Doctor, do you have an  
20 opinion on whether Reynolds and the other  
21 cigarette manufacturers have developed and  
22 marketed cigarettes that address health  
23 claims about environmental tobacco smoke?  
24 A I do.  
25 Q And what is that opinion?

7956

1 A RJ Reynolds and other tobacco companies in  
2 the United States have designed and marketed  
3 cigarettes that address environmental  
4 tobacco smoke claims.  
5 Q Doctor, I want you to explain to the jury  
6 the bases for those opinions, but let me ask  
7 you, you've prepared some charts and some  
8 demonstrative exhibits that will help to  
9 explain your testimony. Is that so?  
10 A I have.  
11 MR. WAGNER: Your Honor, with your  
12 permission, I'd like to ask Dr. Townsend to  
13 step down, please.  
14 THE COURT: Go ahead.  
15 Q The first thing I'd like for you to do,  
16 Doctor, is to tell the jury a little bit  
17 about how a cigarette is designed. Use this  
18 chart and this easel.  
19 A Okay. First, what we have here is a cutaway  
20 of the modern cigarette. First of all, let  
21 me say that this appears to be a very simple  
22 consumer article, but as we get into some of  
23 what I'm going to talk about this afternoon,  
24 we'll see that the physics and chemistry in  
25 a burning cigarette is extremely

7957

1 complicated. But it does look simple at  
2 least at first blush.  
3 What I have here is, of course, the  
4 cigarette and some dimensions, roughly 85  
5 millimeter overall length, or about 3 1/2  
6 inches; the filter usually is about 2  
7 millimeters. If one cuts this cigarette  
8 open, of course, you find a roll of tobacco  
9 wrapped in paper. This roll of tobacco is  
10 actually a blend of different types of  
11 tobacco. It includes burly tobacco, which  
12 generally comes from the mountainous areas  
13 of Kentucky, Tennessee. It also includes a  
14 plu-pure tobacco, which comes from Virginia,

15 North Carolina, Georgia, some from South  
16 Carolina. It also includes usually  
17 different levels of Turkish tobacco,  
18 Oriental tobacco; that has very different  
19 chemistry and a very different taste. It  
20 also includes reconstituted tobacco and  
21 expanded tobacco. And in some cases there  
22 may be small levels of some other tobaccos  
23 as well.

24 Now, it's wrapped in this paper, which  
25 is very carefully manufactured paper to  
7958

1 control the permeability and burn  
2 characteristics of that paper as well.

3 If one turns attention to the filter,  
4 the filter actually is made of a bundle of  
5 fibers. Those fibers are made of cellulose  
6 acetate; it originally comes from wood pulp,  
7 which is then acetylated and then formed  
8 into -- spun into these fibers by our  
9 supplier.

10 The cellulose acetate bundle then is  
11 held together by what we call a plug wrap;  
12 that's the white paper, and its function is  
13 simply to hold the fibers together. The  
14 plug wrap is usually very porous, looks a  
15 lot like tea bag paper. In fact, some of  
16 the suppliers of this paper for us make tea  
17 bag paper as well.

18 Now, this filter assembly and the  
19 tobacco rod assembly is joined together by  
20 what we call the tipping paper. The tipping  
21 paper is sometimes cork colored, sometimes  
22 it's white colored. At any rate, it's glued  
23 to the filter assembly and then an overwrap  
24 overlaps onto the tobacco rod usually about  
25 3 or 4 millimeters and it's glued. So it's  
7959

1 that overlapping, and then gluing, that  
2 holds these two assemblies together.

3 Q Before we go to the next chart, are there  
4 things called additives in cigarettes?

5 A Yes, there are, in most cigarettes.

6 Q And how many additives, just in grand total,  
7 are used in cigarettes?

8 A In 1994, the U.S. cigarette industry made  
9 public its additives list, and it was a  
10 combined list of all additives used by all  
11 manufacturers for all the major  
12 manufacturers in the U.S. The number of  
13 additives on that list was 599.

14 Q And before that time, were cigarette  
15 manufacturers required to file lists of  
16 their additives?

17 A They were.

18 Q And with whom?

19 A Well, beginning in, I believe it was 1984 or  
20 1985, all of the cigarette manufacturers in  
21 the U.S. were required to file, again, a  
22 combined list, with the government. And  
23 actually it went to the HHS, Department of  
24 Human Health and Services. That list went  
25 to the government who then looked at it

carefully and the -- they actually had to update that list periodically. I think it may have been every year. I'm not an expert in additives, obviously, but I believe it was updated every year.

Q All right. Based on your experience and the reading and so forth that you've done in your line of work at RJ Reynolds, has there ever been any scientific complaint about any harmful effects from the use of those additives in cigarettes, to your knowledge?

A To my knowledge, there's never been a scientific attack on any one of those additives, even back to the time when we disclosed the first list in 1984 or 1985, and the Department of HHS looked at those.

Also, when we went public in 1994, with the list of 599, to my knowledge, there's never been a scientific attack on any one of those additives. There certainly has been some media attacks, public relations attacks, but I'm not aware of a scientific attack.

Q You're familiar with something called the Tobacco Working Group; right?

A Yes.

Q What is the Tobacco Working Group, and what did it have to do with additives?

A Well, let's jump back to the mid- to late '60s. The National Cancer Institute, in the late '60s or mid-'60s, put together a Tobacco Working Group. It was directed by the National Cancer Institute, and the objective of that working group was to provide guidelines for the development of less hazardous cigarettes.

The Tobacco Working Group, in its work over the next 10 or 12 years, that effort was terminated in the late '70s, over that 10- to 12-year period, the Tobacco Working Group actually examined a lot of different cigarette constructions, construction variables, processed tobaccos and additives to see how, whether or not they were important for the hazards or how they factor into the risk of smoking.

Q And they did do some testing with the additives then; is that correct?

A Well, they did. They did quite a lot of testing. They built experimental cigarettes

using the different designs. Generated quite an extensive chemistry database of the mainstream smoke.

Mainstream smoke is that smoke that comes out the mouth end of the cigarette and goes into the smoker's mouth. Tried to understand as much as possible about the chemistry of the smoke with all these different experimental cigarettes. They also did some biology. And the main

11 biological tests that they conducted was  
12 mouse skin painting tests, or mouse skin  
13 tumorigenicity tests.

14 Now, that work, when they started that  
15 work, they recognized, I believe, that mouse  
16 skin painting tests were really a pretty  
17 good screening test. There was a lot of  
18 uncertainty, and there still is, between  
19 what mouse skin painting tests, or any  
20 relationship or possible relationship with  
21 mouse skin painting tests and human disease,  
22 but it was a valuable screening test.

23 Q What is the bottom line of all that testing  
24 by the Tobacco Working Group in terms of  
25 additives and whether they have any adverse  
7963

1 health effects?

2 A Well, are you talking about all of the  
3 variables or are you just talking about  
4 additives?

5 Q The Tobacco Working Group and its work on  
6 additives that you just described for us.

7 A Okay. Just the work on additives, the best  
8 of my recollection, the Tobacco Working  
9 Group, under NCI, evaluated a number of  
10 additives, including casing additives, which  
11 primarily are called humectants, things like  
12 glycerin and propylene glycol which are used  
13 to help hold moisture in the cigarettes so  
14 it doesn't dry out fast; sugar, cocoa, and  
15 licorice. Those are casing ingredients.  
16 There are also added to cigarettes  
17 flavorants. They're usually added at very  
18 low levels.

19 Now, the Tobacco Working Group  
20 evaluated these first four, as I recall,  
21 glycerin, sugar, cocoa, and licorice, and  
22 they found that those additives didn't  
23 substantially increase the mouse skin  
24 painting tumorigenicity. I'm not an expert  
25 in biology, so bear with me. Didn't

7964

1 increase the mouse skin painting  
2 tumorigenicity substantially.

3 There was one lingering question, and  
4 that was cocoa. And the results from cocoa  
5 were marginal. They said something like it  
6 may or it appears that it increases it, but  
7 anyway, it was a marginal result.

8 Q Was there some follow-up testing later on on  
9 cocoa?

10 A Well, there was. There's been a number of  
11 studies of cocoa, both trying to examine the  
12 scientific literature to see if cocoa is a  
13 problem in cigarettes. Also conducting  
14 experiments.

15 And in the late '70s, RJ Reynolds  
16 evaluated cocoa in a mutagenicity test and  
17 found negative results that the cocoa didn't  
18 increase mutagenicity. It's a different  
19 test from the mouse skin painting test.

20 Philip Morris, somewhat later on,  
21 conducted an extensive test with cocoa, in

22 cigarettes, at much higher levels than the  
23 Tobacco Working Group evaluated and found no  
24 statistically significant increase in mouse  
25 skin painting results.

7965

1 Q And does RJ Reynolds test additives itself?

2 A We do.

3 Q And do they test additives in burning  
4 cigarettes?

5 A We do.

6 Q And --

7 A We have -- we have toxicologists who  
8 specialize in additives within our company,  
9 and their job is to know all the additives  
10 that we place in our products and know all  
11 the scientific literature that they can find  
12 about each additive, conduct experiments or  
13 direct experiments if they need to. Those  
14 experiments may be pyrolysis studies where  
15 we burn those additives to see what's  
16 produced when it's burned. It may be animal  
17 testing which would be mouse skin painting  
18 tests we can do.

19 Q And generally, what's been the results of  
20 the testing that Reynolds has done on  
21 additives?

22 A The additives that we use in our commercial  
23 products are all not thought to be a problem  
24 at the levels used in the cigarette, and  
25 under the conditions of use. There have

7966

1 been some -- quite frankly, there have been  
2 some additives where we've had some  
3 questions; every time that comes up we take  
4 it out of the products.

5 Q Have you ever heard of something called  
6 coumarin?

7 A Yes.

8 Q The jury has heard some testimony about  
9 coumarin. Let me ask you, first of all, do  
10 you know how to spell coumarin,  
11 Dr. Townsend?

12 A I think so. I'm not very good at spelling,  
13 but --

14 Q I wonder if you could spell coumarin for us.

15 A Coumarin, that's coumarin. Now, its  
16 chemical structure would be something like  
17 this. And at each corner is a carbon, and  
18 then depending on its bonding situation,  
19 there may be one or two hydrogens. So this  
20 is a six-member carbon ring attached to  
21 another six-member -- five-member carbon  
22 ring. Here oxygen replaces that carbon,  
23 double-bonded oxygen. I believe that's  
24 coumarin.

25 Q Now, has coumarin been used as an additive

7967

1 in cigarettes?

2 A Yes.

3 Q And was there a time when companies stopped  
4 using coumarin as an additive?

5 A Yes. I can speak for RJ Reynolds  
6 specifically. RJ Reynolds stopped using

7 coumarin as an additive in the early to  
8 mid-1980s.  
9 Q And can you tell us why?  
10 A Well, there was a lot of publicity about  
11 coumarin. There were some questions about  
12 the safety of using coumarin in foods and  
13 tobacco products. I think IARC,  
14 International Agency for Research on Cancer,  
15 evaluated coumarin, decided it couldn't  
16 classify coumarin as a human carcinogen,  
17 there just wasn't sufficient data. So there  
18 were some questions about coumarin, and not  
19 a whole lot of data to support those  
20 questions, but we took it out anyway.  
21 Q And was coumarin confused with something  
22 that's used in rat poison?  
23 A There's been quite a lot of confusion.  
24 Actually, there's two molecules, two  
25 different compounds that coumarin has been

7968

1 confused with. One is Coumadin, and  
2 Coumadin is, let me draw that structure for  
3 you if I can, is another six-member carbon  
4 ring up here, double bond, and then CH out  
5 there, so that's roughly Coumadin.  
6 Q And so some people have confused the two; is  
7 that correct?  
8 A Well, in my opinion, yes. Coumadin sounds  
9 like coumarin. Coumadin is used as a rat  
10 poison. It's an anticoagulant. There's no  
11 evidence that coumarin has anticoagulant  
12 properties that I'm aware of. Never seen  
13 anything of the sort.  
14 There's also another compound called  
15 dicumarol. And dicumarol is something like  
16 this, where you have two six-member double  
17 rings joined together, this (indicating),  
18 and dicumarol also is an anticoagulant.  
19 Now, this is actually -- Coumadin  
20 actually is used for medicinal, for medical  
21 purposes. I think it's used under several  
22 trade names, maybe Warfarin or something  
23 like that, for blood clotting.  
24 Q Kind of a blood thinner-type thing?  
25 A Yeah. And dicumarol is an anticoagulant,

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1 has also been used as a rat poison, I  
2 believe. They're really different  
3 structures, and scientists at Reynolds have  
4 done some radio-tracer work where we tried  
5 to see, does coumarin actually give this.  
6 There's really not much way, chemically, it  
7 can give this directly, we don't think. But  
8 the question was, it might give this. So we  
9 tested it by using radio-labeled compounds  
10 of coumarin. And radio labeled means we  
11 used a radioactive carbon at different  
12 places in the molecule, and we found it  
13 didn't produce this. So we don't believe  
14 that that reaction occurs.  
15 Now, in spite of that, we still took it  
16 out.  
17 Q All right. Okay, Doctor, thank you.



18 Now, can you tell us, please, what  
19 happens? You gave us a little demonstration  
20 there a minute ago before we had the  
21 diversion or additives. Can you tell us  
22 what happens when a cigarette is smoked?  
23 A Can everybody see this okay? First of all,  
24 let me just say again, the burning cigarette  
25 is extremely complicated, both from a

7970

1 chemical and physical point of view. What  
2 I've done here is just -- and I'll not go  
3 into a whole lot of detail here -- but what  
4 I've done is expanded this region of the  
5 cigarette so we're really looking at just  
6 the burning area of the cigarette.

7 Of course, we have what we call the  
8 fire cone, the burning itself, the burning  
9 material. There's ash around it, of course.  
10 The tobacco column is back this way. And  
11 the front edge of the cigarette paper, I've  
12 placed here as a zero. So everything in  
13 front of zero is out where the cigarette  
14 paper has already burned away, back here the  
15 paper is still intact. So the edge of the  
16 paper is here.

17 What we have in a burning cigarette is  
18 an area called the combustion region. And  
19 that's where carbonatious char, or char  
20 really, oxidizes with oxygen, generates a  
21 lot of heat, develops high temperatures; and  
22 sure enough, in the center we see  
23 temperatures in the range of 800 or even  
24 more degrees centigrade, which would be  
25 about maybe 14, 1500 degrees Fahrenheit.

7971

1 It's quite hot in the center.

2 Now, what happens when one puffs on the  
3 cigarette, the first thing is that when one  
4 puffs on a cigarette, the air doesn't come  
5 in the front end of this fire cone region.  
6 Because the temperatures are really quite  
7 hot here, it's hard for air to move through  
8 those hot regions. So most of the air will  
9 come in the side of the cigarette, right in  
10 front of the cigarette paper. Most of the  
11 air comes in at the side and front of the  
12 cigarette paper, it goes through this  
13 combustion region. The oxygen in the air is  
14 burned and actually is part of the reason  
15 you generate so much heat. So now this  
16 heated oxygen-deficient air travels down  
17 into the tobacco rod, and it's hot; the  
18 gases are hot; so it heats tobacco back here  
19 that hasn't burned.

20 When it heats that tobacco up to a  
21 certain temperature, what we call the  
22 pyrolysis temperature, the tobacco will  
23 undergo massive decomposition. A lot of  
24 vapor phase compounds are generated. These  
25 vapor phase compounds, pyrolysis products,

7972

1 then carry further down the tobacco rod.

2 They start to cool, and when they cool,

3 these gas phase molecules then condense;  
4 they condense into little liquid droplets.  
5 It's a lot like having a lot of water vapor  
6 in the air at night, but the air temperature  
7 falls, and you form a fog. It's exactly the  
8 same process. So the smoke droplets are  
9 actually formed way back here.

10 Let me say that the smoke itself,  
11 cigarette smoke itself, is comprised of two  
12 different pieces. There's these little  
13 particles, and I'll call them particulates.  
14 There's also a gas phase that doesn't  
15 condense into these little droplets. So the  
16 smoke has to have both phases, the  
17 particulates and the gas phase.

18 Now, as the smoke, the particles and  
19 the gas, both carry down the tobacco rod,  
20 you can actually remove -- the tobacco rod  
21 actually removes some of these particulates;  
22 not very efficiently, but it does. Some of  
23 these gas phase molecules can condense  
24 directly on the tobacco shreds that are  
25 cooler way back here. Some of the light gas

7973

1 in the smoke, like carbon monoxide and  
2 nitric oxide, can diffuse out. Air can  
3 diffuse in. So then what's left after all  
4 this complicated exchange, what comes out  
5 the mouth end of the cigarette is what we  
6 call mainstream smoke.

7 Two regions: There's a combustion  
8 region, a pyrolysis region, and the smoke  
9 actually is formed not out here in the fire  
10 cone; the smoke, as I've described it, is  
11 formed a little bit behind the front edge of  
12 the paper inside the tobacco rod.

13 Q Okay, you mentioned that in all of this  
14 there's some liquid droplets; is that  
15 correct?

16 A That's right.

17 Q What size are they?

18 A Well, they're real small. Our best guess on  
19 the size of the droplets -- we've done many  
20 measurements; we've looked at a variety of  
21 different techniques -- our best guess is  
22 about two-tenths of a micron in diameter.

23 Now, a micron is a millionth of a  
24 meter. Two-tenths of a micron is so small  
25 you can't see that droplet, but you can see

7974

1 a cloud of smoke when you have a collection  
2 of these droplets because of the way the  
3 light actually scatters -- is scattered by  
4 those real tiny droplets. So when you see a  
5 cloud of smoke, you're not seeing the  
6 particles, per se. You're seeing how the  
7 light is scattered by them.

8 Q Doctor, you have a chart that illustrates  
9 the percentage of --

10 A I'll get it.

11 Q This one here, I believe. So what does this  
12 chart tell us, Doctor?

13 A Well, this is a complicated chart, and what

14 I'm going to try to do is just simplify it  
15 very quickly.  
16 What this does is gives some clue to  
17 the composition of cigarette smoke, the  
18 chemical composition of cigarette smoke. It  
19 looks very complicated, but just let me lead  
20 you through it very simply.  
21 Let's assume one starts out with 500  
22 milligrams of smoke as it comes out the  
23 mouth end of the cigarette. So we've got  
24 500 milligrams of smoke in our hand. If we  
25 ask the question, what's it composed of, it

7975

1 looks something like this: We've got  
2 roughly 4 1/2 percent -- this is for a  
3 non-filtered cigarette, and again, making  
4 the assumption that we've got 500 milligrams  
5 of whole smoke. Only 4 1/2 percent by  
6 weight is these little droplets, or the  
7 particulates.

8 Also we call it total particulate  
9 material, or TPM. So only 4 1/2 percent of  
10 these particulates, about 13 1/2 percent is  
11 the gas phase that goes with the smoke, 62  
12 percent is nitrogen, about 13 percent  
13 oxygen, a little bit of CO, carbon monoxide;  
14 a little bit of argon from the air, a few  
15 other things.

16 Now, if one takes this 4 1/2 percent  
17 that's in the particles, in those droplets,  
18 and you say, what's in there, it expands  
19 into a huge list, many, many different  
20 constituents, many compounds, all present at  
21 very small levels. But you've got about 16  
22 percent water, you've got carboxylic acids,  
23 aldehydes, alcohols, nicotine, other  
24 alkaloids, turbinoids, pigments, oligomers,  
25 polymers, some of which -- a lot of which we

7976

1 don't know, but we know quite a lot of this.  
2 It's a very complex mixture.

3 Now, if one comes over to the other  
4 side and asks the question what's this gas  
5 phase piece composed of, you break it out,  
6 it's primarily carbon monoxide and water,  
7 and only 10 percent organic compounds.

8 We can then ask the same question;  
9 well, what does the organic compound mixture  
10 look like? And so it looks something like  
11 this: We've got hydrocarbons, aldehydes,  
12 ketones. These are all classes of different  
13 compounds. So, for example, aldehydes,  
14 there would be 20 percent of 10 percent of  
15 13 percent. So small, small quantities.

16 Q Now, you didn't make that diagram as shown  
17 on that demonstrative, did you? Where did  
18 that come from?

19 A This diagram was taken from the Surgeon  
20 General's report in 1989.

21 Q Down at the bottom there are a couple of  
22 names. Can you tell the jury who they are?

23 A Right. This report taken from the Surgeon  
24 General cites a Dr. Doogie (phonetic) and

25 Dr. Green, and they're both chemists at RJ  
7977

1 Reynolds Tobacco Company. They published  
2 this in the peer-reviewed literature. The  
3 Surgeon General then reproduced this in the  
4 Surgeon General report.

5 Q And do you have a chart that will explain to  
6 the jury a little more simply what you just  
7 told them?

8 A This is a much simpler chart, but it at  
9 least makes one of the points -- two of the  
10 points, I guess, I already made. And the  
11 first is -- and this is specific to Winston,  
12 Winston Full Flavor, or Winston Regular,  
13 Winston Red cigarette.

14 If one takes all the smoke that comes  
15 out of the mouth end of the cigarette,  
16 breaks it down, approximately 60 percent of  
17 the weight of that smoke is nitrogen, about  
18 15 to 16 percent is oxygen, about 11 percent  
19 carbon dioxide, a little bit of other air  
20 components, which includes argon and a few  
21 trace compounds; 2 percent water, about 3 or  
22 4 percent carbon monoxide, a bunch of other  
23 compounds; very complex mixture here.  
24 Nicotine, of course, about .3 percent. And  
25 then tar, for this particular cigarette,

7978

1 about 3.8 percent. These are our best  
2 estimates for the total.

3 Q Doctor, most people have heard about tar.  
4 Can you tell us what tar is?

5 A I'll try. Tar is actually a defined number,  
6 or defined term. And tar is the  
7 particulates. We talked about those little  
8 droplets. It's the particulates that you  
9 get out of a cigarette if the cigarette is  
10 smoked under a particular set of conditions.  
11 And if you use a particular type of filter  
12 to trap those particles, and if you  
13 condition the cigarettes under a certain  
14 humidity before they're smoked; in other  
15 words, if you follow a specific protocol,  
16 and you trap all the particulates, then you  
17 analyze those particulates on that filter  
18 for nicotine and water. You know how many  
19 grams or milligrams of the particulates  
20 there are, subtract nicotine and water, and  
21 we call that tar.

22 So the point is, it's a very specific  
23 term, and it's a highly defined term and  
24 it's dependent on the protocol that's used.

25 Q Let's look at the year 1955, let's hark back

7979

1 a little bit to 1955. How much tar did the  
2 average cigarette in the marketplace in 1955  
3 have?

4 A In 1955, to the best of our ability to  
5 estimate that, tar levels were about 38 to  
6 40 milligrams per cigarette, in that range.

7 Q And how much tar does the average cigarette  
8 on the market produce today?

9 A Sales weighted average tar in the U.S.

10 market today is right about 12 milligrams  
11 per cigarette, maybe a shade under.  
12 Q That would be, what, about a 60 percent or  
13 so reduction?  
14 A Overall that's more than a 60 percent  
15 reduction.  
16 Q Tell us what a milligram is.  
17 A Well, a milligram is a thousandth of a gram,  
18 of course. A gram is about a 28th of an  
19 ounce. Now, an ounce is about the weight of  
20 the material in a package of Equal. So  
21 that's about an ounce. Take a 28th of that,  
22 and that's a gram. And then a milligram is  
23 a thousandth of that.  
24 Q Now, are many of the compounds that are  
25 found in tar in a range called the nanogram

7980

1 range?  
2 A Well, we talked -- I talked a minute ago  
3 about how complicated this particulate phase  
4 and this gas phase mixtures were. And, in  
5 fact, most of the constituents in these gas  
6 phase mixtures are in the nanogram or  
7 smaller quantity range.

8 A nanogram is a billionth of a gram.  
9 Okay? So if a gram is 1/28th of an ounce, a  
10 nanogram is a billionth of 1/28th of an  
11 ounce. It's a small number.

12 Q Have you got a chart there that will help  
13 illustrate what a nanogram is?

14 A What I've depicted on this chart is simply  
15 that nanograms are real small quantities.  
16 Real small quantities. And just to try to  
17 give some idea of how small it is, one part  
18 in a billion is roughly the same as the  
19 thickness of one sheet of paper in a stack  
20 of paper about 63 miles long, which is  
21 roughly the distance from here to  
22 Indianapolis. Again, this is just a  
23 perception of how small a nanogram is.

24 Q So the important point, I suppose, is that  
25 when we're talking about compounds and tar,

7981

1 we have to remember that most of them are  
2 present in nanograms; is that right? Would  
3 that be a fair statement?

4 A Most are. There are some that are present  
5 in microgram. There are a few that are  
6 present in milligram. Most are in the  
7 nanogram quantities.

8 Q Let's talk about the identification of  
9 mainstream smoke constituents. Can you  
10 explain for the jury a little bit about the  
11 history of what we know about the individual  
12 constituents in cigarette smoking.

13 A Again, cigarette smoke is very complex  
14 chemically. And what I've got here is a  
15 chart to depict how we've learned more about  
16 cigarette smoke over the years, particularly  
17 as analytical chemistry has improved.

18 Way back in the 1950s, we knew maybe,  
19 oh, somewhere around 90 or 100 or so  
20 different chemical compounds that were

21 present in cigarette smoke. Analytical  
22 chemistry back then was pretty tedious. It  
23 was very difficult to identify compounds at  
24 very low levels.

25 But then as new techniques,

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1 particularly gas chromatography, a very  
2 powerful laboratory technique, gas  
3 capillary, gas chromatography -- actually,  
4 Reynolds was the pioneer in the world  
5 involved in this. We worked with one of the  
6 main inventors of this technique to perfect  
7 it long before universities really had it as  
8 a powerful tool. It's a pretty powerful  
9 tool for analytical chemistry.

10 And as a result of this improved  
11 sensitivity and ability to see small  
12 quantities in complicated mixtures, we see a  
13 sharp increase in the number of known  
14 compounds in smoke. Then again, with the  
15 use of mass spectrometry, again we use that  
16 extensively at Reynolds -- I think our  
17 competitors do as well -- we see a large  
18 number increase in the number of  
19 constituents.

20 Today we know there's somewhere in the  
21 neighborhood of 48, 4900 known compounds in  
22 cigarette smoke. There are probably more;  
23 if we have and can develop more sensitive  
24 techniques, we may even see more.

25 Q Okay. Doctor, I think you can return to

7983

1 your seat for a little bit here.

2 Can you give the jury some examples of  
3 the difficulties that were encountered in  
4 the 1950s in identifying individual  
5 mainstream smoke constituents?

6 A Well, as I said a minute ago, the analytical  
7 techniques in the '50s were really pretty  
8 primitive compared to where we are today.  
9 An example is probably the identification,  
10 or the best example is probably the  
11 identification of benzpyrene, also called  
12 BaP or benzo(a)pyrene.

13 Benzpyrene is present in cigarette  
14 smoke, we know now, in the nanogram range, a  
15 billionth of a gram; and to determine its  
16 presence in cigarette smoke, scientists at  
17 Reynolds had to build a very large  
18 separation column, big glass pipe, that was  
19 roughly three stories high. We constructed  
20 it in a stairwell of the research and  
21 development building, filled it full of this  
22 absorbent that would help separate the  
23 material.

24 We smoked somewhere between 13 and  
25 15,000 cigarettes, collected all the tar

7984

1 from all of those cigarettes, placed at the  
2 top of this large separation column;  
3 technicians ran up and down the stairwell  
4 pouring solvent in the top of the column to  
5 try to elute, as we say in chemistry, to try

6 to elute this material down the three-story  
7 column so that we would finally get a very  
8 small amount of pure crystalline benzpyrene  
9 at the bottom and then get a positive  
10 identification on it. Pretty tedious,  
11 certainly crude by today's standards.

12 Q So you don't have to use those kinds of  
13 rather primitive techniques today?

14 A No, thank goodness.

15 Q What has been the result of the more  
16 sophisticated analytical techniques that  
17 have become available in terms of  
18 identifying constituents and compounds in  
19 cigarette smoke?

20 A As we've developed -- as science has  
21 developed more sophisticated analytical  
22 techniques, we've been able to identify more  
23 and more and more constituents in smoke  
24 present at the nanogram level, or picogram  
25 level, even smaller. Or even now we're  
7985

1 getting into the femtogram level. So it's a  
2 millionth of a billionth. So we're really  
3 getting into really small trace quantities  
4 through these analytical improvements.

5 Q We talk about a lot of compounds being  
6 identified in cigarette smoke. Are there  
7 other substances that we commonly use that  
8 have large number of -- large numbers of  
9 constituents and compounds identified?

10 A I think most natural products and natural  
11 materials are extremely complicated. I  
12 think for coffee, for example, I think it  
13 hasn't been studied nearly as much as  
14 tobacco and tobacco smoke. But for coffee,  
15 I think it's easy to find in the literature  
16 more than a thousand constituents in coffee.  
17 Chocolate certainly is another example.  
18 I think natural products are extremely  
19 complicated.

20 Q Doctor, do you know of any substance that's  
21 been as intensely studied as cigarette  
22 smoke?

23 A Well, it's my opinion, after looking at the  
24 literature quite a bit over 20 years, that  
25 tobacco and tobacco smoke is probably the  
7986

1 most thoroughly studied natural material  
2 that I'm aware of.

3 For example, coffee, I'm certain -- I'm  
4 certain is quite complicated. Chocolate is  
5 quite complicated, but it hasn't received  
6 the intense chemical analysis that tobacco  
7 and tobacco smoke have.

8 Q I want to move now to the topic of designing  
9 and modifying cigarettes and sort of start  
10 out with a basic question here. Are all  
11 cigarettes the same?

12 A They may appear to be the same, or very  
13 similar on their surface. Cigarettes in the  
14 U.S. market, however, are not the same.  
15 There are wide differences in construction,  
16 there's wide differences in cigarette

17 performance as well.  
18 Q And when a cigarette designer like yourself  
19 wants to design or modify a cigarette, what  
20 do you have to take into account?  
21 A Well, the first -- the first thing any  
22 product developer or scientist needs to know  
23 is what the objective is.  
24 Q And what do you mean by the objective?  
25 A What is it you're trying to accomplish in

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1 designing a new product or in modifying the  
2 existing product. You need to have a  
3 clearly stated objective.  
4 Q Can you give us some examples of specific  
5 design objectives?  
6 A Sure. One example might be to change the  
7 cigarette design to reduce tar and nicotine  
8 delivery. Another example might be to  
9 change the cigarette design to reduce tar  
10 delivery and increase the pressure drop, or  
11 how difficult it is to draw on the  
12 cigarette. That's a term we use internally.  
13 And try to decrease tar and increase  
14 pressure drop. Or another objective might  
15 be to decrease tar and hold the pressure  
16 drop, or degree of difficulty drawing, the  
17 same. So those are some examples.

18 Q When you're trying to do those things, do  
19 you sometimes run into something called  
20 tradeoffs?

21 A One thing about cigarette construction and  
22 product development is that the different  
23 construction variables are interrelated.  
24 And if one changes one, one ultimately  
25 affects a number of properties of the

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1 cigarette. So there's a lot of interrelated  
2 effects.

3 So as a result, it's often the case  
4 where one tries to achieve these multiple  
5 design targets and can't, and so there are  
6 always, I think, in almost every case, there  
7 are design tradeoffs.

8 Q Can you give us an example of a design  
9 tradeoff with respect to filters?

10 A That would be a good example with filters.  
11 I can make a filter that's a hundred percent  
12 efficient, or almost a hundred percent  
13 efficient in removing all the tar, removing  
14 all of those little particles. But the  
15 pressure drop, or how hard it is to draw on  
16 that filter is so high, smokers won't accept  
17 that. It's like drawing through -- it's  
18 like drawing a milk shake through a very  
19 small straw. It's too difficult.

20 Q Do tradeoffs occur in connection with other  
21 products?

22 A Sure, they do. I think a good example of  
23 tradeoffs in another popular consumer  
24 product is in cars. It's easy to imagine  
25 that one could design and build an extremely

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1 safe car that would get very poor gas



2 mileage. So for the consumer safety and gas  
3 mileage or safety and comfort are tradeoffs  
4 that the consumer makes.

5 Q So when you design a cigarette, you have  
6 objectives in mind; right?

7 A Yes.

8 Q And is the process of designing a cigarette  
9 simply a matter of meeting those design  
10 objectives, or is there some overriding  
11 thing that you have to be aware of?

12 A Well, it turns out, in my experience, I  
13 believe, that meeting the technical  
14 objective is only the first step. If one  
15 can meet your technical objectives, then the  
16 next and very important, equally important  
17 question is, is it consumer acceptable. I  
18 think ultimately consumer acceptance of  
19 products is essential in product  
20 development, of course.

21 Q Can you give us some examples of cigarettes  
22 that failed to achieve consumer acceptance?

23 A Well, unfortunately there are a number of  
24 those. Probably the first one that comes to  
25 my mind is a product called Premier, which

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1 RJ Reynolds test marketed in 1988, failed in  
2 the marketplace. It wasn't consumer  
3 acceptable; it had poor taste.

4 Another example would be one marketed  
5 by our competitors, Next. Next was a  
6 cigarette that had almost no nicotine, so  
7 what they did was they maintained the tar  
8 levels at their current level and then just  
9 reduced the nicotine to almost nothing.  
10 There's still trace amounts there, small  
11 amounts there. And that failed in the  
12 marketplace.

13 There are quite a few products that  
14 have failed in the marketplace.

15 Q Couple of those would be Horizon and Chelsea  
16 also; is that right?

17 A Horizon, Chelsea, Vantage XL. There have  
18 been a large number of products.

19 Q All right. I think you've mentioned that  
20 over the years smoking and health issues  
21 have guided cigarette design efforts; right?

22 A That's correct.

23 Q And did the smoking and health literature  
24 that existed provide a clear guidance for  
25 cigarette design?

7991

1 A No, I don't think it provided a clear  
2 guidance at all. It did provide a lot of  
3 different theories, hypotheses on why  
4 cigarettes, why cigarette smoking is a risk  
5 factor for a number of diseases. But I  
6 don't think it was clear guidance.

7 But, in any event, the scientists at  
8 Reynolds, and I believe at my competitor  
9 companies as well, looked at those theories,  
10 monitored the literature very carefully;  
11 took those theories, considered them in the  
12 laboratory, whether they believed them to be

13 true or not, and sought ways to respond.  
14 Q Okay. Let's hark back to the 1950s. In the  
15 1950s, was the scientific community  
16 beginning to study cigarettes and cigarette  
17 smoke?

18 MR. MOTLEY: Excuse me, Your Honor.  
19 I would like -- we would like to voir dire  
20 the witness. Since he didn't get there  
21 until the '70s, is he basing it on his going  
22 back and looking at things? I just think a  
23 foundation needs --

24 MR. WAGNER: I thought I laid that  
25 foundation earlier, Your Honor.

7992

1 THE COURT: I think you did,  
2 Counselor.

3 MR. MOTLEY: Well, is that  
4 foundation applicable now to this new line  
5 of questions, is my objection, Your Honor.  
6 That's all I want to know.

7 MR. WAGNER: I'll lay a foundation.  
8 Q In connection with your work, Dr. Townsend,  
9 have you reviewed what the scientific  
10 community was doing with respect to the  
11 study of cigarettes and cigarette smoke  
12 beginning in the 1950s?

13 A I have reviewed quite a lot. I'm certainly  
14 not an expert in medical science,  
15 toxicology, or anything of the sort. I'm a  
16 chemist. But as a result of reviewing the  
17 literature prior to the time I started  
18 working with Reynolds, I did go back through  
19 quite a lot of epidemiology research. Not  
20 that I understood very much of it. Through  
21 some medical research, through biological  
22 studies, like mouse skin painting studies.

23 I also looked extensively in many  
24 internal reports at Reynolds where other  
25 people had done the same at the same time in

7993

1 the '50s and '60s before I started at  
2 Reynolds. And tried to draw connections  
3 between the types of design work they were  
4 doing and the various theories and  
5 hypotheses that the scientific community had  
6 considered.

7 Q There were epidemiologic studies in the  
8 1950s on the association between cigarette  
9 smoking and lung cancer; right?

10 A There were epidemiological studies in the  
11 '50s on cigarette smoking and lung cancer.

12 Q And weren't there some mouse skin painting  
13 studies done also in the 1950s?

14 A Well, it's my understanding that a number of  
15 people had tried to get a positive mouse  
16 skin test with cigarette smoke tar, or  
17 condensate; and it was finally successful in  
18 the early '50s in an experiment that  
19 Professor Ernst Wynder conducted. I think  
20 that was published in roughly 1953, where he  
21 did find, in fact, excess tumors when  
22 cigarette condensate was painted on the back  
23 of mice.

24 Q The jury has heard a little bit about  
25 Dr. Wynder, but tell us again who is

7994

1 Dr. Wynder?

2 A At the time of the '50s, he was professor at  
3 Washington University in St. Louis. After  
4 that he went on to be the founder and the  
5 director of the American Health Foundation.  
6 And today he is currently at the American  
7 Health Foundation.

8 Q Let me ask you to step down, please, for a  
9 minute, with the Court's permission, and  
10 tell us how the scientific community reacted  
11 to Dr. Wynder's mouse skin painting tests.

12 MR. MOTLEY: Your Honor, is he now  
13 an expert on the scientific community? I  
14 mean, we've been patiently sitting back  
15 here. I think we need --

16 THE COURT: Why don't you make your  
17 question a little more specific. I'm not  
18 sure I understood your question.

19 Q Okay. Dr. Townsend, based on your review of  
20 the literature pertaining to what was going  
21 on in the smoking and health field in the  
22 1950s and your understanding of Dr. Wynder's  
23 mouse skin painting test, my question is  
24 whether or not you're familiar with how the  
25 scientific community reacted to Dr. Wynder's

7995

1 mouse skin painting results?

2 MR. MOTLEY: We object, Your Honor.  
3 He said he's not an epidemiologist, he said  
4 he's not a medical scientist, he said he's  
5 not a toxicologist. How can he speak -- he  
6 can speak for the chemists, if he wants to,  
7 but there's no foundation here that this  
8 gentleman is able to help the jury under  
9 Chapter 700 of the rules.

10 MR. WAGNER: Judge, he's testified  
11 that as part of his work and what he's done  
12 at RJ Reynolds, he's studied this literature  
13 as part of his work and what was going on  
14 during this period of time, Your Honor.

15 THE COURT: You're talking in terms  
16 of chemistry?

17 MR. WAGNER: Your Honor, this all  
18 pertains to chemistry and cigarette design  
19 and the cigarette design work that this  
20 witness has done.

21 THE COURT: He can limit his answer  
22 to chemistry.

23 MR. MOTLEY: Chemists, the  
24 scientific community, I have no objection to  
25 the chemists.

7996

1 THE COURT: He can answer that.

2 Q Well, is chemistry involved in Dr. Wynder's  
3 work?

4 A Chemistry was involved in the National  
5 Cancer Institute, TWG work, where they  
6 analyzed and evaluated chemistry and tried  
7 to relate that to mouse skin painting  
8 studies. In Dr. Wynder's 1953 epi study, I

9 frankly don't remember.  
10 Q When Dr. Wynder performed the mouse skin  
11 painting test in the 1950s, was there a  
12 consensus reached among the scientific  
13 community about Dr. Wynder's work that  
14 you're familiar with?  
15 MR. MOTLEY: Again, Your Honor, I  
16 hate to stand up here, but I just don't  
17 believe the gentleman's qualified to tell us  
18 what doctors thought or what epidemiologists  
19 thought. I've got no objection --  
20 THE COURT: Is that what you're  
21 asking him, Mr. Wagner?  
22 MR. MOTLEY: He said scientific  
23 community. He didn't limit it to chemists.  
24 I've got no problem with chemists.  
25 MR. WAGNER: Judge, this witness is

7997

1 an expert in cigarette design. He's  
2 testified as a foundational matter earlier  
3 that he has familiarized himself with the  
4 literature in the smoking and health field  
5 that preceded his employment at RJ Reynolds  
6 Tobacco Company.  
7 It's part of his background and his  
8 knowledge and experience, his education and  
9 the work that he does. He studied the  
10 scientific literature that relates to what  
11 Dr. Wynder did, and I'm simply asking him to  
12 tell the jury what his understanding is of  
13 the scientific community's reaction to  
14 Dr. Wynder's mouse skin painting results,  
15 which this witness knows about, which he's  
16 studied, and which is part of his  
17 background, education and experience as an  
18 expert in cigarette design.  
19 MR. MOTLEY: Your Honor, I've got  
20 no problem with him being an expert in  
21 cigarette design. I've got a big --  
22 MR. WAGNER: Well, Judge --  
23 MR. MOTLEY: Excuse me, let me  
24 finish.  
25 MR. WAGNER: I'm sorry.

7998

1 MR. MOTLEY: I apologize. I have a  
2 problem with doctors who volunteer here in  
3 response to a question by Mr. Wagner that he  
4 holds no expertise and holds out himself as  
5 having no expertise in toxicology, in  
6 epidemiology, and in medical science. He's  
7 asked him a question that asks him to  
8 incorporate all aspects of the scientific  
9 community.  
10 THE COURT: I agree.  
11 MR. MOTLEY: Not just that --  
12 THE COURT: He can tell us about  
13 the tobacco scientific community, and he can  
14 tell us about chemists, but your question  
15 was too broad.  
16 MR. WAGNER: All right. Let me try  
17 again.  
18 Q Based upon your reading and knowledge of  
19 what the literature was in the 1950s, which

20 was part of your work, was what the  
21 cigarette companies and what Reynolds did  
22 with respect to Wynder's mouse skin painting  
23 studies in the field of cigarette design  
24 based in part at least on what the  
25 scientific community's reaction was to

7999

1 Dr. Wynder's work?

2 THE COURT: He can answer that yes  
3 or no.

4 A Yes, sir.

5 MR. WAGNER: All right. I think  
6 I've laid a foundation, then, Your Honor,  
7 for the witness to tell the jury what the  
8 scientific community's reaction was to  
9 Dr. Wynder's mouse skin painting test.

10 MR. MOTLEY: Your Honor --

11 THE COURT: The tobacco scientific  
12 community and chemists. Can you answer that  
13 question?

14 THE WITNESS: From a tobacco  
15 scientist's or chemist's point of view?

16 THE COURT: Yes.

17 THE WITNESS: Yes, sir.

18 THE COURT: Why don't you.

19 THE WITNESS: Can you repeat that?

20 Q Sure. Can you tell the jury from a tobacco  
21 company's and from tobacco scientists'  
22 standpoint, what was the reaction to  
23 Dr. Wynder's mouse skin painting results?

24 A It's my opinion that tobacco scientists and  
25 chemists, particularly those chemists

8000

1 working in the industry and outside the  
2 industry also, viewed Dr. Wynder's mouse  
3 skin painting results as important to the  
4 kind of work that can provide guidance, but  
5 doesn't give direct proof that cigarette  
6 smoking causes cancer.

7 Q Let me ask you this: Do other common  
8 substances produce tumors in mouse skin  
9 painting experiments?

10 A My general understanding is quite a few  
11 things do, particularly at certain  
12 application dose levels, things like tomato  
13 juice, or pepper, just a variety of things.  
14 Again, mouse skin painting studies, in my  
15 estimation, what I know about it, involves  
16 usually quite high dose applications.

17 Q All right. I'll ask you to resume your seat  
18 again, if you will, please, Dr. Townsend.

19 Based on your review of the literature,  
20 Doctor, did the 1950's statistical studies  
21 and mouse skin painting studies affect  
22 consumer demand for cigarettes?

23 MR. MOTLEY: Excuse me, Your Honor.  
24 Now he's asking him for an opinion about  
25 consumer demand, a marketing issue. I hate

8001

1 to keep standing up here, but I don't  
2 believe the gentleman has been qualified in  
3 that area.

4 MR. WAGNER: Judge, I think I have

5 qualified this witness.  
6 THE COURT: Overruled on that.  
7 MR. WAGNER: Thank you.  
8 THE COURT: If you can repeat the  
9 question, Counselor.  
10 Q Dr. Townsend, did the statistical studies in  
11 the 1950s, the mouse skin painting studies  
12 in the 1950s, affect consumer demand for  
13 cigarettes?  
14 A It's my opinion, from what I've seen, that  
15 both the epidemiological results, the  
16 association between cigarette smoking and  
17 lung cancer, and the mouse skin painting  
18 results of Professor Wynder both served to  
19 cause consumers to want cigarettes that had  
20 reduced risk, or reduced potential risk.  
21 Q And did that include a demand for lower tar  
22 cigarettes?  
23 A Well, it did. And I think a number of -- a  
24 number of people actually began at that  
25 point calling for reduced tar level

8002

1 products, including later in the '50s,  
2 Professor Wynder, who published in Reader's  
3 Digest that if one were able to reduce the  
4 tar level in cigarettes of 1957 by roughly  
5 40 percent, that would be about, well,  
6 cigarettes were about 30 milligrams per  
7 cigarette in that day, and a 40 percent  
8 reduction would be down to about 18  
9 milligrams. If that happened, Professor  
10 Wynder suggested that that would go a long  
11 ways toward reducing lung cancer.  
12 Q And did those studies also have an effect on  
13 the cigarette design efforts at RJ Reynolds  
14 Tobacco Company?  
15 A It's my opinion they had a direct effect on  
16 cigarette design efforts at RJ Reynolds. We  
17 started in the early '50s, when the  
18 epidemiology and the mouse skin painting, of  
19 course, was present on the table, and we  
20 began intensive efforts to try to speak to  
21 those, the smoking and health issues through  
22 two major areas through selectively reducing  
23 various constituents or compounds in smoke  
24 that the scientific community thought might  
25 be a problem, and also through what I call

8003

1 general reduction, and that is, reducing all  
2 the constituents in smoke through overall  
3 tar and nicotine reduction.  
4 Q And were those two approaches pursued at the  
5 same time?  
6 A They were. They both started in the early  
7 '50s. They both have been carried out  
8 simultaneously ever since, and we're  
9 conducting at Reynolds today, as we speak,  
10 research in both selective reduction and in  
11 further tar and nicotine reductions.  
12 Q Let's talk about selective reduction, what  
13 you just mentioned.  
14 A Yes.  
15 Q Can you explain to the jury the theory

16 behind selective reduction?  
17 A Selective reduction assumes that you know  
18 what in cigarette smoke might be a problem.  
19 So one compound, or maybe one class of  
20 compounds, the scientific community may  
21 think, thinks may be the problem. Then  
22 selective reduction would be somehow  
23 designing a cigarette to go in and  
24 specifically reduce or eliminate that one  
25 compound or that class, leaving everything

8004

1 else the same.

2 So that sort of is a quick explanation  
3 of selective reduction.

4 Q What was the first constituent of cigarette  
5 smoke that was targeted for selective  
6 reduction?

7 A The very first constituent that the  
8 scientific community looked at in cigarette  
9 smoke that might be the reason for the  
10 association between cigarette smoking and  
11 lung cancer was benzpyrene, also called BaP.  
12 Benzpyrene was thought to be present in many  
13 combustion systems. Automobile exhaust,  
14 anything that burns was thought to produce  
15 benzpyrene.

16 The other thing was that earlier, in  
17 fact, a number of years earlier, biologists  
18 had seen positive mouse skin painting tests  
19 with pure benzpyrene. So there were a  
20 couple of reasons the scientific community  
21 looked to benzpyrene and said maybe that's  
22 the reason why there's an association  
23 between smoking and health.

24 Q Does cigarette smoke contain benzo(a)pyrene?

25 A Yes, it does, we know that now.

8005

1 Q And how much?

2 A It's in the nanogram quantity. A number of  
3 scientists actually began working very  
4 diligently to try to identify benzpyrene in  
5 cigarette smoke, and if you remember just a  
6 few minutes ago I was talking about this  
7 three-story column, that's what we were  
8 trying to do, was separate and identify  
9 benzpyrene in smoke.

10 Benzpyrene is present in, oh, well  
11 today's cigarettes are roughly somewhere  
12 between five and ten nanograms per cigarette  
13 depending on which product you pick out of  
14 the market.

15 Q And benzo(a)pyrene is present in other  
16 things that we eat or drink; isn't that  
17 right?

18 A That's correct. As I said, benzpyrene is  
19 probably found in most combustion systems,  
20 it's found in air. It's in air pollution.  
21 It's found in foods, probably as a large  
22 result of air pollution. Many foods, like  
23 broccoli and other, and tomatoes and others  
24 have measurable and pretty high  
25 concentrations of benzpyrene in them.

8006

1 Q How does the level of benzo(a)pyrene in  
2 mainstream smoke compare with benzo(a)pyrene  
3 levels found in other things, can you give  
4 us an example or two?

5 A I'll give you two examples. One is, if we  
6 go back and understand that benzpyrene is  
7 found in air pollution, there's a scientist,  
8 his name is Middleton, actually published in  
9 the Lancet, which is a prestigious medical  
10 journal, published in the Lancet that if one  
11 compares the benzpyrene level in London air  
12 versus a 50-cigarette-per-day smoker, just  
13 breathing the London air would give about a  
14 hundred times the exposure. I think, you  
15 know, I don't know many people that smoke 50  
16 cigarettes per day, and I don't know many  
17 people that smoke in London, but I think  
18 it's an interesting comparison.

19 Another example is one that I did a  
20 calculation on and it's estimating the  
21 amount of benzpyrene in a charcoal broiled  
22 steak. Turns out that when one grills a  
23 steak, the fat from the steak drips down  
24 into the barbecue -- into the grill. The  
25 fat is actually decomposed or pyrolyzed.

8007

1 Benzpyrene is formed in that process and  
2 then the smoke from the coals carry that  
3 benzpyrene back and deposit it on the  
4 surface of the steak. And the steak can get  
5 fairly high levels of benzpyrene on its  
6 surface as a result.

7 I estimated from some information that  
8 I found that an eight-ounce steak, using the  
9 data that I had, would be about equivalent  
10 to the benzpyrene level in 600 cigarettes.

11 Q In the 1950s, why was it that benzpyrene was  
12 focused on as a candidate for selective  
13 reduction?

14 A Well, it's mainly because of the two things  
15 that I've already spoken to, and one is that  
16 benzpyrene is -- was thought to be present  
17 in most combustion systems. Tobacco and  
18 cigarette smoking is a combustion system.  
19 It probably is there.

20 The second thing is because benzpyrene  
21 was thought to be carcinogenic in mouse skin  
22 painting studies, and carcinogenicity is  
23 not, at least again I'm not an expert in  
24 this area, but my understanding is  
25 carcinogenicity, of course, depends on level

8008

1 and the type of animal, the type of tissue  
2 that one applies this material to. But  
3 nevertheless, benzpyrene did show excess  
4 tumors in mouse skin painting.

5 Q What did researchers at Reynolds do with  
6 respect to benzo(a)pyrene in their design  
7 efforts?

8 A We did three things: The first was to  
9 determine if benzpyrene is present in  
10 cigarette smoke. At the time we started  
11 out, I think a number of other researchers



12 started out trying to do exactly the same  
13 thing. We did identify positively by  
14 collecting, isolating, and actually having  
15 crystalline benzpyrene in our hand, that it  
16 was present in cigarette smoke. Some  
17 researchers moved a bit faster because they  
18 didn't, or they tried to estimate benzpyrene  
19 present in cigarette smoke based on UV  
20 spectra, which is not a definitive tool.  
21 But nevertheless, we did find it present in  
22 cigarette smoking.

23 The second thing we tried to do was try  
24 to determine how much was present. So we  
25 went through very extensive quantification

8009

1 procedures and found that at that time, in  
2 the early '50s, we found about 50 nanograms  
3 per cigarette from a Winston cigarette. So  
4 we had found that it was there, and we  
5 determined how much was there.

6 Then the third thing we did was try to  
7 figure out ways to reduce or eliminate it in  
8 smoke through selective reduction.

9 Q And were others outside of Reynolds also  
10 working on ways to reduce benzo(a)pyrene?

11 A I think there were a number of people  
12 working on ways to reduce benzpyrene,  
13 including Professor Wynder. He published  
14 quite a lot. There were articles in  
15 Reader's Digest, he testified before  
16 Congress. I think there were a number of  
17 things that gave us a clue of what was going  
18 on.

19 Also, we had scientific discussions  
20 with a number of other scientists.

21 Q Doctor, with the Court's permission, I'd  
22 like to ask you to step down again and tell  
23 the jury about the techniques that were used  
24 to selectively reduce or eliminate  
25 benzo(a)pyrene.

8010

1 A This is just a brief summary of some of the  
2 techniques we've used to reduce benzpyrene.  
3 Let me get over here so maybe you can hear  
4 better. They boil down to two major overall  
5 approaches.

6 The first is somehow prevent its  
7 formation in the combustion, and another  
8 approach would be to remove it, go ahead and  
9 let it be formed in combustion, but then  
10 somehow remove it from the smoke after it's  
11 formed.

12 These are some of the techniques that  
13 we've looked at, including additives to  
14 tobacco, things like metal nitrates, that  
15 might prevent the formation of benzpyrene  
16 when the tobacco burns. The use of  
17 different filter materials, or even  
18 different filter additives to try to remove  
19 it selectively as the smoke goes through the  
20 filter.

21 The use of different cigarette papers  
22 to try, again, to try to prevent the

23 formation. And the idea there is if you use  
24 papers that let more air in, you might  
25 reduce the production of benzpyrene. And

8011

1 then another is tobacco extraction. And  
2 that simply was to try to remove those  
3 compounds, that when they're burned,  
4 ultimately form benzpyrene. We call those  
5 precursors.

6 Q If we could maybe go through those briefly  
7 and tell us maybe more precisely what you  
8 were doing. Let's take the first one there  
9 with tobacco additives. Tell us what is  
10 involved there and whether that worked.

11 A Well, again, probably the best example is  
12 metal nitrates that we've added to the  
13 tobacco. We did technically see some  
14 reduction in benzpyrene, but I think that  
15 didn't really work out because we were  
16 concerned about adding metal nitrates in the  
17 first place.

18 The second thing is in some cases there  
19 were fiery particles that came out of the  
20 cigarette. There were a number of issues  
21 there.

22 We did look at a number of other  
23 tobacco additives as well, not just metal  
24 nitrates.

25 Q Did critics also make recommendations about  
8012

1 possible additives that could be used?

2 A Well, they did. I think a number of  
3 scientists were looking at this in this area  
4 as well because it's pretty obvious, really,  
5 you try to add something to tobacco to  
6 prevent the formation. Many scientists were  
7 looking at it.

8 Q One of those was Dr. Wynder; is that right?

9 A He was one.

10 Q And did Reynolds evaluate all those  
11 recommendations?

12 A From?

13 Q From Dr. Wynder.

14 A We evaluated some of the recommendations  
15 from Dr. Wynder and particularly the one  
16 that I'm focused on here is the metal  
17 nitrates. That was an extensive piece of  
18 work.

19 Q And that was not adopted; is that right?

20 A We did not adopt that.

21 Q Why was that?

22 A Mainly because there was some issues about  
23 adding metal nitrates, (inaudible).  
24 Nitrates, we know that when they're heated  
25 and burned form nitric oxides, which was

8013

1 something that we were questioning in  
2 cigarette smoke maybe being a problem in  
3 itself. And then the other reason was, as  
4 I've already said, possible hot particles,  
5 fiery particles of these metal nitrates  
6 falling out.

7 Q Do you have a page from the 1979 Surgeon

8 General's Report on that subject?  
9 A Yes, I do. This is a page from the Surgeon  
10 General's Report, and I apologize for it  
11 being so small, what I've done is I've  
12 highlighted a couple of places, this is from  
13 1979.

14 And the important point here is, and  
15 this -- this chart actually comes from  
16 Professor Wynder. The important point here  
17 is that here is some of the different ways  
18 that were explored to reduce benzpyrene.  
19 And Dr. Wynder makes it clear that tobacco  
20 additives that include nitrates was  
21 investigated. Said, okay, it can show a  
22 reduction, technically, a reduction in  
23 benzpyrene delivery, but it's of academic  
24 interest only. And then in a separate  
25 publication, went on to talk about some of  
8014

1 these same issues that we have.

2 Q As to filters, was Reynolds able to develop  
3 filters it that would specifically filter  
4 out BaP?

5 A Well, the short answer is no. It was a good  
6 idea at the time because we felt, gee, if we  
7 had a selected filter that could just reach  
8 out and suck out the benzpyrene from the  
9 smoke as the smoke moves through the filter,  
10 wouldn't that be great.

11 What we didn't understand, and what  
12 scientists at least at Reynolds didn't  
13 understand at the time, was that for that to  
14 happen, the compound that you're trying to  
15 remove has to be volatile. It has to  
16 somehow evaporate from the particle and then  
17 get trapped by whatever you put in the  
18 filter, get absorbed on that material.

19 And it turns out that benzpyrene is not  
20 volatile, so it's -- benzpyrene stays in the  
21 particle, the particle then goes through the  
22 filter, some of the particles are trapped by  
23 the filter, mechanically, but you can't  
24 selectively reduce benzpyrene from filter  
25 additives.

8015

1 Q Tell us what you mean by, what's meant by  
2 the term extraction and its use with  
3 benzo(a)pyrene.

4 A What we believed -- first of all let me back  
5 up. Benzpyrene is not present in tobacco in  
6 measurable quantities. It's generated when  
7 the tobacco burns. And so the obvious  
8 question then is: Where does it come from?  
9 What are the precursors that ultimately,  
10 when burned, cause benzpyrene formation?

11 So scientists at Reynolds undertook a  
12 number of extensive experiments, again  
13 sometimes using those radio-tracer studies,  
14 using added compound studies, to try to find  
15 out what ultimately gives off benzpyrene --  
16 what is the precursor? And we found that  
17 waxes, particularly compounds like  
18 Solanesol, long chain aliphatic hydrocarbons

19 are precursors, that when they're heated,  
20 they undergo free-radical reactions that  
21 then cyclize to form benzpyrene.  
22 Tobacco extraction was an approach to  
23 try to remove those precursors to reduce the  
24 formation of benzpyrene.

25 Q How extensive was Reynolds' efforts with  
8016

1 extractions?

2 A It was pretty extensive. We even later on  
3 in the '50s after we understood what the  
4 precursors were, we evaluated a large number  
5 of possible solvents, and even when we  
6 narrowed it down to a couple of solvents  
7 that seemed to work best, we built a large  
8 pilot plant and actually processed fairly  
9 large volumes of tobacco.

10 Q So did extraction work?

11 A It had some practical problems.  
12 Technically, it did work. We saw reductions  
13 of benzpyrene, if we extracted these  
14 precursors from the tobacco. In the  
15 practical sense, it didn't work, for a  
16 number of reasons.

17 Q Can you tell us why it didn't work? And you  
18 have a chart on that?

19 A Yes. I think there were three major  
20 reasons, and this just summarizes them.  
21 First of all, the extracted tobacco really  
22 had a very different taste. We found  
23 smokers didn't like that, or at least people  
24 on our evaluation smoke panels, because you  
25 can't just extract out just the precursor.

8017

1 You put a solvent in there, you extract out  
2 other things as well. So it did change the  
3 taste.

4 The extraction did reduce benzpyrene  
5 and we believe certain other polycyclic  
6 aromatic hydrocarbons, but what we found was  
7 some other compounds went up. In  
8 particular, phenols went up. That was an  
9 issue because some people in the scientific  
10 community were starting to look at phenols  
11 as possibly a constituent in smoke that  
12 might be part of the problem. So we had  
13 some concerns about what -- this tradeoff.  
14 We reduced benzpyrene, but phenol went up.  
15 That was a concern.

16 Also we had manufacturing difficulty.  
17 When we extracted the tobacco, turns out  
18 that that tobacco was very brittle, very  
19 fragile, wouldn't make good cigarettes,  
20 wouldn't go through a cigarette maker very  
21 well. It also had residual solvents in it.  
22 I think there were a number of technical  
23 manufacturing problems.

24 Q What's your understanding of experiences of  
25 others who were also working with the

8018

1 extraction process?

2 A I think others, at least from what I've seen  
3 in the literature, others did see some

4 technical success also. They did see a  
5 reduction in benzpyrene yields from the  
6 cigarette, but I think they also saw some of  
7 the same practical problems that we saw.  
8 Q And can you refer again to that 1979 Surgeon  
9 General's Report and tell us what the  
10 conclusion of it reached.  
11 A Again, this was taken from Professor Wynder,  
12 and the Surgeon General included this in his  
13 '79 report. And if we look up here, as one  
14 of the ways to reduce biological activity  
15 through benzpyrene reduction; tobacco  
16 processing, extraction with organic  
17 solvents. Again, he shows that it does  
18 reduce BaP, and, again, it was only of  
19 academic interest for the reasons that I've  
20 already discussed.  
21 Q And did there come a time, based again upon  
22 your review of the literature, when the  
23 scientific community began to question  
24 whether BaP was the magic bullet, so to  
25 speak?

8019

1 A It's my opinion, I believe the scientific  
2 community did begin questioning whether or  
3 not benzpyrene itself was responsible for  
4 the connection between the epidemiology and  
5 health.  
6 Q You have another chart that would illustrate  
7 that for us?  
8 MR. MOTLEY: Your Honor, I have the  
9 same objection if it goes beyond the tobacco  
10 scientists and chemists. He's asked the  
11 question again now in a sweeping way about  
12 the scientific community and Your Honor has  
13 already ruled.  
14 MR. WAGNER: Judge, this has to do  
15 with the design efforts that Dr. Townsend is  
16 describing to the jury in the use of  
17 selective reduction techniques and what was  
18 being done not only inside Reynolds but  
19 outside Reynolds, and he's already laid the  
20 foundation, or I've laid the foundation that  
21 this work, this design work was pursued in  
22 part by what was being done by the  
23 scientific community and what their views  
24 were and I think he's entitled to describe  
25 to the jury what these were. It's part of

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1 the foundation.  
2 MR. MOTLEY: That's the same  
3 argument we had about the other matter, Your  
4 Honor. I don't object to him offering  
5 opinions about what the tobacco scientists  
6 knew and what the chemists knew, this is the  
7 same subject matter.  
8 THE COURT: I agree. It should be  
9 limited to that.  
10 Q Well, let me ask -- let me put the question  
11 to you this way, Dr. Townsend: Did there  
12 come a time when efforts to reduce or  
13 eliminate BaP became less focused than they  
14 were and the direction went elsewhere?

15 A The efforts to reduce benzpyrene did become  
16 less intense. I don't think the efforts to  
17 reduce benzpyrene has ever gone away. We  
18 still look at ways to do that. But they did  
19 become less intense because a number of  
20 scientists realized, after we and other  
21 laboratories had quantitated the amount of  
22 benzpyrene in smoke, and says, whoa, you  
23 know, it's 10 nanograms, 50 nanograms.  
24 That's not enough to account for the mouse  
25 skin painting results.

8021

1 Many people in the scientific community  
2 then turned to another magic bullet, not  
3 necessarily closing the door on benzpyrene,  
4 but looking to see what else might be in  
5 smoke that may account for the biology.

6 MR. WAGNER: Okay. Judge, this  
7 would be a good place to break for the  
8 evening. I'm about to go into a different  
9 subject.

10 THE COURT: All right. Thank you,  
11 Counselor.

12 Doctor, you may step down. We'll start  
13 again -- actually, tomorrow morning we're  
14 going to start at 9:30, ladies and  
15 gentlemen, so you have a little extra time  
16 in the morning.

17 (Standard admonition)

18 I'll see you in the morning at 9:30.  
19 Good evening.

20 MR. CASSELL: All rise.

21 THE COURT: You may step down.  
22 Thank you.

23 (Jury not present)

24 MR. MOTLEY: Judge, do you have  
25 about ten minutes to address a matter?

8022

1 THE COURT: Certainly.  
2 Be seated.

3 MR. MOTLEY: I confess at the  
4 outset, Your Honor, I'm asking you to  
5 revisit a ruling, but I have a reason for  
6 asking you to revisit.

7 THE COURT: That's not the first  
8 time.

9 MR. MOTLEY: And I'm generally, I  
10 think my success rate is about zero, but I'm  
11 hopeful that Your Honor will hear me on this  
12 for the reasons that we just heard from this  
13 witness.

14 Let me orient Your Honor -- since  
15 there's been so many documents, let me  
16 reorient, if I might, at least for the  
17 record. Your Honor will remember this is a  
18 document for which there's a work product  
19 claim made.

20 THE COURT: Right.

21 MR. MOTLEY: And this is one of the  
22 Liggett documents that have been  
23 deprived now by four different courts on  
24 the basis of crime/fraud.

25 THE COURT: Right.

1 MR. MOTLEY: I now assert an  
2 additional issue because of the testimony of  
3 Dr. Townsend.

4 Dr. Townsend sat right here and told  
5 Your Honor and the jury on the record that  
6 there was no scientific criticism ever  
7 launched against additives, words to that  
8 effect, and I can get the transcript in the  
9 morning to -- because I want Your Honor to  
10 think about this and maybe look at this  
11 document overnight in light of this witness'  
12 testimony.

13 Your Honor, in fact, this -- that  
14 statement that he made is belied by the  
15 document in my hand, and that Your Honor is  
16 looking at. I think that to suggest to this  
17 jury that there was no criticism of  
18 additives -- the discussions that they've  
19 had here about additives, when we got a  
20 document, an RJ Reynolds' document, prepared  
21 by counsel for RJ Reynolds, Your Honor,  
22 which has been found to be a crime and a  
23 fraud by numerous courts, if you just look  
24 at footnote, Footnote 2, Your Honor, on page  
25 7, on corporate misconduct, the Footnote 2.

1 Now, this gentleman just testified  
2 about the testing of the additives, and made  
3 it sound like that Reynolds has been testing  
4 the additives. The fact of the matter is  
5 they weren't, as this memo reveals.

6 And, indeed, Your Honor, the Spears  
7 that's mentioned here is a witness who is  
8 listed for tomorrow, he's the chairman of  
9 the board of Lorillard, and was former head  
10 of R & D of Lorillard, and Hayes was a  
11 former head of R & D at RJR Tobacco. And it  
12 makes a reference here to a memo by a  
13 Lorillard employee, Alex Spears, to  
14 Dr. Hayes at RJRT suggesting in 1984 the  
15 Committee of Counsel thwarted, thwarted,  
16 T-H-W-A-R-T-E-D, the industry scientists'  
17 desires to assure the safety of the product  
18 by testing the ingredients adequately.

19 Now, Judge, in addition to the courts  
20 that have found this passage and others in  
21 this document constitute furtherance of an  
22 ongoing fraud on the courts, and in addition  
23 to the finding that was recently made by  
24 Judge Fitzpatrick, which I gave you the  
25 other day, about the -- I don't want to say

1 perverse, although I'm tempted to, pervasive  
2 use of lawyers to shelter information by the  
3 industry.

4 In addition to that, Your Honor, the  
5 discovery rules provide that work product  
6 is, in fact, privileged except when there's  
7 a demonstration of a substantial need, that  
8 can overcome the work product. Can't  
9 overcome privilege, attorney-client  
10 privilege. It can overcome work product.

11 And Your Honor, here we have a  
12 situation -- here we have a situation, Your  
13 Honor, where there's a reference to a letter  
14 from Spears to Hayes that Spears and Hayes  
15 were discussing having the ingredients  
16 tested adequately -- those are his words.  
17 You have a discussion throughout here, Your  
18 Honor, about what they did and didn't do, so  
19 far as testing these additive materials.

20 They brought it up; they first had the  
21 man say he wasn't an expert on additives.  
22 Then he launched right into a discussion of  
23 additives and what testing was done.

24 They bring a witness in here who joins  
25 the company in the '70s who apparently has

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1 done a retrospective analysis of documents  
2 that predate his joining the company.  
3 That's why I wanted to make sure that that  
4 foundation was in this record, Judge.

5 So here's a guy who has gone back and  
6 looked at documents, and here's a lawyer  
7 that's gone back and looked at an additives  
8 document, and the only way that the  
9 information is available to me is through  
10 this memorandum.

11 So I reurge Your Honor that this is a  
12 crime and a fraud document, and that Your  
13 Honor should deprive it just like the  
14 other four courts have done it based on  
15 corporate misconduct.

16 But more importantly, Your Honor, you  
17 now see that I'm in the situation of  
18 substantial need here. This witness has  
19 come in here on questioning by Mr. Wagner  
20 and offered all kinds of observations and  
21 opinions about what he's gone back and  
22 looked at.

23 This document, Your Honor, if you read  
24 it tonight, and I urge you to read it  
25 tonight, and maybe we can revisit this

8027

1 tomorrow, but I urge Your Honor, in light of  
2 what you just heard about the additives and  
3 the testing and all of that, that Your Honor  
4 take a good look at this document and let's  
5 perhaps visit this again in the morning.  
6 But I think you need to -- I respectfully  
7 suggest you need to read the whole thing in  
8 the context of what Mr. Townsend just said  
9 to understand why I'm making this renewal  
10 both on crime/fraud and on substantial need.

11 THE COURT: Thank you, Counselor.

12 Mr. Wagner, you think we're on a  
13 different footing here now with the  
14 testimony?

15 MR. WAGNER: No, I don't believe we  
16 are at all, Your Honor, with all due  
17 respect. There's probably not anything that  
18 could be said in this courtroom about any of  
19 the subjects that have been testified about  
20 over the last four weeks or so, however long  
21 we've been here, that you couldn't find



22 some -- a possible reference in this  
23 document. Your Honor excluded the admission  
24 of this document on the grounds it was work  
25 product and attorney-client privilege.

8028

1 Asking a witness -- let's back up here for  
2 just a moment.

3 The subject of additives was opened up  
4 by the plaintiffs during their case in  
5 chief. They had witnesses testify about  
6 additives, they had witnesses testify about  
7 coumarin, and all these things. We are  
8 certainly entitled to have a witness rebut  
9 the testimony of those witnesses without  
10 having a privileged and a work product  
11 document, which Your Honor has already ruled  
12 upon, now opened up. I mean, and if you  
13 just look at the footnote they're talking  
14 about, it's, again, nothing more than -- let  
15 me back up again.

16 This document, as I've explained to the  
17 Court before and as the Court has found, is  
18 a document that was prepared by the Jones  
19 Day lawyers when they first got into this  
20 case, they were exploring various theories  
21 and premises. It's a think piece, along  
22 those lines, and it's a strategic planning.  
23 There's no admission of any kind in here  
24 that have anything to do with things that  
25 would be admissible in a court of law, even

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1 if this wasn't a privileged document and  
2 also protected by the work product doctrine.

3 Judge, this witness simply testified  
4 directly to the matters that had been raised  
5 during the plaintiffs' case in chief, and  
6 I'm certainly entitled to do that without  
7 opening the door to every possible thing  
8 that might be in a privileged and work  
9 product memorandum. I mean, the fact that  
10 this witness testified about something  
11 doesn't change the nature of this document.

12 MR. MOTLEY: Your Honor, I just --

13 THE COURT: Thank you, Mr. Wagner.

14 Mr. Motley.

15 MR. MOTLEY: I don't want to  
16 belabor this right now.

17 THE COURT: I understand.

18 MR. MOTLEY: Your Honor I'm sure is  
19 going to look at it overnight. But just for  
20 example, Judge, he's talking about testing  
21 of the cigarettes and all of that. Look at  
22 page 3, please, sir. Here is a starting  
23 admission that --

24 MR. WAGNER: Judge, I object to  
25 reading from this document, because you've

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1 already ruled, of course, that it's  
2 privileged.

3 THE COURT: Generally. Generally.

4 MR. MOTLEY: I won't -- my general  
5 point here, Your Honor, is, without specific  
6 reference to this document, which, by the

7 way is on the Internet, so I mean, it's not  
8 like this is secretive.

9 MR. OHLEMEYER: We've heard that  
10 before.

11 MR. MOTLEY: But it's not a big  
12 secret. It refers to the critics of the  
13 industry and the industry have tested the  
14 wrong product. This man sat up here and  
15 talked about all the testing that's been  
16 done, and yet here you have a situation  
17 where they say they tested the wrong product  
18 because they tested Kentucky reference  
19 cigarettes that don't have the additives in  
20 them.

21 And that's just one more example, Your  
22 Honor, of why I think this matter is now  
23 ripe for revisit.

24 MR. WAGNER: Judge, all of these  
25 things are lawyer's opinions of what lawyers  
8031

1 write about in connection with the defense  
2 of their client.

3 THE COURT: I will reread it. I  
4 have read that before, but I'm going to  
5 reread it tonight.

6 MR. MOTLEY: Yes, sir, I think when  
7 I first offered it, it was kind of in the  
8 abstract. I think we've got a little better  
9 reference.

10 THE COURT: It was. It was.

11 Court has reviewed and revisited the  
12 issue raised in a motion for relief from an  
13 order in limine, still of the opinion that  
14 the original ruling was correct. I'm going  
15 to deny the motion for relief from that.

16 Court also has a matter of a request  
17 for a special instruction which was made  
18 this morning regarding preemption. I've  
19 looked at the proposed instruction that's  
20 requested at this point to the jury, thought  
21 about what was actually said. In my mind,  
22 that is a matter that can be dealt with on  
23 final instructions, and on that end I'm  
24 going to -- consequently, I'm going to deny  
25 the request for a special instruction at

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1 mid-trial.

2 I am going to permit counsel to submit  
3 for all the combined defendants, for the  
4 holding companies, and for Liggett actually,  
5 also, I will accept at least ten more  
6 proposed final instructions, and also from  
7 the plaintiff also. I realize there are  
8 issues that perhaps were not anticipated  
9 when we began, so I'm just telling you that  
10 now for your planning purposes.

11 Who do you intend to call tomorrow,  
12 Mr. Ohlemeyer?

13 MR. OHLEMEYER: Your Honor, we'll  
14 finish with Dr. Townsend, call Dr. Appleton,  
15 and then Dr. Smith.

16 MR. MOTLEY: Dr. Smith tomorrow?

17 MR. OHLEMEYER: Correct.

18 THE COURT: And Friday what would  
19 be your thought?  
20 MR. OHLEMEYER: Dr. Hoff, and  
21 that's it.  
22 THE COURT: You still think that  
23 you'll be resting on Friday then?  
24 MR. OHLEMEYER: I think so.  
25 THE COURT: All right.

8033

1 MR. MOTLEY: Judge, let's assume,  
2 hypothetically, that the defendant rests at  
3 noon or right after noon. I know they don't  
4 believe that we should have any rebuttal, so  
5 by raising this I don't mean to suggest that  
6 I expect them to agree that we're entitled  
7 to any rebuttal, but I would think, Your  
8 Honor, that we could profitably spend that  
9 afternoon when they're done with us  
10 proffering to you what we think we are  
11 entitled to rebut; that is the name of the  
12 witness and the areas that we would want to  
13 offer them for rebuttal.

14 Your Honor could think about that, and  
15 you could rule. And then if the ruling is  
16 that we can, as to XYZ but not ABC, but if  
17 you believe in fairness that the defendants  
18 ought to have an hour or so to interview  
19 them, we'd have Sunday night or whatnot to  
20 conduct depositions and we could start  
21 rebuttal on Monday morning.

22 I just also would add as a suggestion  
23 in the event that Your Honor finds we can  
24 make rebuttal through witnesses and if you  
25 feel like they ought to have a chance to

8034

1 interview them --

2 THE COURT: I don't think that's a  
3 bad idea, do you?

4 MR. OHLEMEYER: No, I'm happy to  
5 discuss the issue on Friday with the Court.  
6 In fact, I'd like to submit a bench brief on  
7 rebuttal Friday morning if I can, too, Your  
8 Honor, because I think it's an issue that a  
9 lot of courts have dealt with in the context  
10 of this type of case and we ought to talk  
11 about it.

12 THE COURT: While we're just  
13 talking here, what's going to be the request  
14 for final arguments in terms of time? Have  
15 you given that any thought? If you haven't  
16 you can tell me tomorrow.

17 MR. OHLEMEYER: I think three hours  
18 just like we did the opening.

19 MR. MOTLEY: No, Your Honor. This  
20 case is extremely important to both sides.  
21 And three hours for previewing what you  
22 think the evidence is going to be may give  
23 justice to what you think it's going to be  
24 in the context of not arguing the case. But  
25 now the case is in, and this is not -- this

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1 is not a simple evidentiary matter, Your  
2 Honor. There has been very technical issues

3 here, and I would respectfully suggest that  
4 both sides be given six hours, which is  
5 essentially a full day. And we would  
6 reserve an hour and a half for rebuttal.

7 I understand, it's -- when I first  
8 started practicing law in South Carolina,  
9 Judge, you stood up and said hello to the  
10 ladies and gentlemen of the jury. I think  
11 I've proved my case, and I sat down. You  
12 got to do all your time in rebuttal. I  
13 don't suggest that at all. I think a ratio  
14 of 3 to 1 is adequate.

15 THE COURT: Holding companies wish  
16 to be heard here?

17 MR. OHLEMEYER: No. We've  
18 discussed the issue with them.

19 THE COURT: You're speaking for  
20 all?

21 MR. OHLEMEYER: I think in a case  
22 where the evidence has gone five weeks like  
23 this, ten minutes a day is what they tell  
24 you, sometimes, and it adds up to about  
25 three hours a side. And I think the Court

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1 should also consider getting it done in a  
2 day.

3 I mean, two days for arguments in a  
4 case where the evidence went four weeks  
5 seems to me to be a little excessive. I  
6 think the issues can be fairly and  
7 effectively dealt with. We've had a jury;  
8 they've taken notes. We've had witnesses,  
9 we've had demonstrative exhibits. I think  
10 three hours a side is adequate. I certainly  
11 think six hours a side is excessive.

12 THE COURT: All right. I just  
13 wanted to get your thoughts. Thank you.

14 MR. MOTLEY: Should I respond to  
15 that excessive argument? I think you  
16 understand both sides' position, and a case  
17 of this magnitude and this importance, Your  
18 Honor, I think, deserves full advocacy in  
19 closing argument to tie this evidence  
20 together. I mean, we've had a myriad of  
21 issues.

22 By our count, the defendants have  
23 thrown 38 different possibilities on the  
24 wall of causation here that I'm going to  
25 have to deal with. When you unleash a bevy

8037

1 of birds like that, Your Honor, I don't  
2 believe a one-shot rifle will do me any  
3 good.

4 THE COURT: I will see you in the  
5 morning. Good evening.

6 (The proceedings were adjourned at 5:40  
7 p.m. to be reconvened March 12, 1998 at 9:30  
8 a.m.)  
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